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NATURAL GAS SECTION PROCEEDINGS

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The 1941 Natural Gas Section Proceedings has been divided into seven sections. The first is "General" where the reports of several active committees will be found. Thomas J. Strickler, president of the American Gas Association, has contributed an inspirational talk entitled "Deeds First, Then Words." Among other interesting articles appearing here is a provocative one entitled "What Have We Accomplished and Where Can We Go?" The natural gas industry has made a record of which it can be proud, and on page 25 the director of the U. S. Bureau of Mines tells you what it is.

What transpired at the "Luncheon Meetings" is next related, and there the reader will find reports of the Accounting Committee, the Home Service Program, and Industrial and Commercial Gas Sales, the latter of which contains an important message from the vice-president and general manager of the Chamber of Commerce of Dallas, Texas.

That part of the Proceedings devoted to "Transmission" starts off with a discussion of methods of maintaining high pipe line flow efficiency, followed by papers on weather forecasting, effect of compressibility factor on horse-power requirements in high compression, gas flow computations, and gas pipe line flow calculator. In a panel discussion of Modern Compressor Station Design, more than a half-dozen well-informed and practical gas men partake. Finally, there is a report on liquefaction, storage and regasification of natural gas, a paper on the water content of compressed gases, and welded pipe headers and their reinforcement.

Opening the "Production Conference" there is a symposium on shooting and acidizing of wells with the experiences in several regions described. Other subjects which follow have to do with gas mixing in porous media, deposition of salt in producing formations, completion of gas wells through producing pay to obtain data for reserve estimates and for other purposes, and cathodic protection as a possible means for preventing corrosion of gas well casing.

In the "Industrial and Commercial Gas Sales Conference" appears the question, "What's happening in the gas engine field?" The contents are the answer. Business promotion methods are treated as well as air-conditioning and commercial refrigeration, and automatic controls. (What they mean to you and your customer.) No one can afford to miss the symposium that follows—"The Value of Miscellaneous Gas Uses in Building a Well Rounded Industrial and Commercial Lead" in which many important industrial and commercial men exchange useful knowledge, ideas, and experiences on subjects varying from bakeries and power plants to railroads.

"Look Homeward" commands the opening of the "Residential Gas Sales Conference" and the American family comes in for a word or two. In conclusion, the executives' responsibility for sales in a metropolitan company is discussed in which the vitally important features of company sales policy are clearly brought out.

For the accountant, the "Accounting Conference" will prove of great interest. Such present-day problems of his profession as "Plant Accounting and Records" and "Accounting in Taxation" are treated.

AMERICAN GAS ASSOCIATION

420 Lexington Avenue, New York, N. Y.



CONTENTS FOR NOVEMBER 1941



The story of gas in the present emergency was told with impressive effect at the Annual Meeting. Scores of speakers from this country and Canada took part in defense symposiums and sketched a picture of fine achievement in industry, home and army camp. . . . It was evident that the gas industry had made great strides in the efficient utilization of its full resources since World War I. As one speaker phrased it, "Gas has proved the very antithesis of bottlenecks." The contrast of 1918 and today was that of a high school team with an all-American football squad—the gas industry is now a mature, well-knit, powerful machine ready to cope with extraordinary demands. . . . The Association's part in the emergency and its place as an agency of efficiency and economy were ably presented by Major Strickler and we commend his address for your serious consideration. Incidentally, the Major did a bang-up job of presiding at the Annual Meeting. . . . What to do about sales promotion during the crisis is plaguing management. Both Carl Wolf and Clifford Paige set up guideposts which are the result of rich experience.

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SUBSCRIPTION • \$3.00 A YEAR

Published eleven times a year by the American Gas Association, Inc. Publication Office, American Building, Brattleboro, Vt. Publication is monthly except July and August which will be a bi-monthly issue. Editorial Offices, 420 Lexington Avenue, New York, N. Y. Address all communications to American Building, Brattleboro, Vermont, or to 420 Lexington Ave., New York, N. Y. All manuscript copy for publication should be sent to the editorial offices in



New York. The Association does not hold itself responsible for statements and opinions contained in papers and discussions appearing herein. Entered as Second Class Matter at the Post Office at Brattleboro, Vermont, February 10th, 1922, under the Act of March 3, 1879.

Cable Addresses: American Gas Association
AMERIGAS, NEW YORK
American Gas Association Testing Laboratories
AMERGASLAB, CLEVELAND



GEORGE S. HAWLEY, of Bridgeport, Conn., who was elected President of the American Gas Association at the twenty-third Annual Meeting in Atlantic City, N. J. Mr. Hawley is president of The Bridgeport Gas Light Company.



JAMES M. BEALL, *Editor*

GAS IN DEFENSE

.... Aid to Nation is Keynote of Annual Meeting

UNDER balmy skies in that famous resort meeting place, Atlantic City, more than 1800 representatives of the gas industry in this country and Canada pledged anew their faith in America and sought ways and means to implement the industry's wholehearted pledge to support the national defense program to the hilt. With the country's freedom threatened from without and within, and the greatest industrial mobilization in history now under way, the American Gas Association's twenty-third annual meeting, October 20-22, was bound to be a momentous one. Certainly it served to emphasize and underline the vital importance of the gas industry in the present crisis.

Shortened in length, stripped of formal entertainment features, and confined to the most outstanding problems facing the gas industry, this unprecedented meeting was a living symbol of the industry's earnestness and sincerity in aiding the national effort. Under the capable leadership of Major T. J. Strickler, president of the Association, and vice-president and general manager of the Kansas City Gas Company, the program encompassed the most compelling problems of the day.

Not only the general sessions but the sectional programs were built around the all-embracing theme of national defense. The special and effective device of panel discussion provided a splendid medium for a large amount of useful information to be packed into a short period. These sessions were the most popular feature of the entire meeting. The Industrial and Commercial Gas Section discussed gas at work in national defense; the Residential Section concentrated on promotional policies during the emergency; the Natural Gas Section explored the regional problems of the industry as related to defense; the Technical Section examined methods of protecting lives and property and of maintaining service in emergency situations; the Home Service Breakfast dealt with nutrition and defense. Even

the Accounting Section which held round table discussions of ever-present accounting problems devoted close attention to records and inventories in the priorities situation. In short, the major portion of the programs was directly tied up with the nation's defense. All of these meetings are reported in this issue of the MONTHLY.

George S. Hawley, president of The Bridgeport Gas Light Company, Bridgeport, Conn., was elected president of the Association for the 1941-1942 term. Arthur F. Bridge, vice-president and general manager, Southern Counties Gas Co., Los Angeles, Calif., was elected vice-president and Ernest S. Acker, president, Central Hudson Gas & Electric Corp., Poughkeepsie, N. Y., was re-elected treasurer.

The Treasurer's Report, presented by Mr. Acker, showed the Association to be in sound financial condition and fully able to maintain its full quota of activities in the new year.

President Strickler in an inspiring address before the first general session, entitled "The American Gas Association Is On the Job," depicted the Association as a vital agency in modern industry which is fully equal to the responsibilities of this extraordinary period. He stated that the Association "has adapted its activities to the changing conditions brought about by the national emergency and is an economic asset today in the nation's business structure. It is adequately meeting the special demands of the Government's defense program in addition to operating in the interests of the gas industry's customers and its security owners."

"The Association's record in supporting the Government's defense program is an illuminating one and a source of pride to all of us," President Strickler said. "As a matter of fact the Association set up its Committee on National Defense before the war started in Europe. For two years prior to the conflict, Association Headquarters had assem-



A gala event—the Home Service Breakfast in Atlantic City



George S. Hawley, of Bridgeport, Conn., newly elected president of the Association, receiving the congratulations of retiring president T. J. Strickler, of Kansas City, Mo.

bled material that would prove helpful at some future date in view of the irresistible progress toward war. When war actually became a reality, the Association was in the enviable position of already being well prepared to serve its membership." President Strickler then presented in detail the steps taken by the Association since the war began. His address is printed in full elsewhere in this issue of the MONTHLY.

The importance of nutrition to defense was fully explored in two outstanding addresses at the annual meeting. Dr. William H. Sebrell, deputy assistant director, Office of Defense Health and Welfare Services, Washington, D. C., speaking at the first gen-

eral session, said that at least one third of the population of the United States fails to get an adequate diet, and examinations for selective service showed that many men were unfit because of nutrition deficiencies.

Dr. Sebrell described how the government established a yardstick of nutrition and translated it into diets which were suitable for various income levels. Following this, state nutrition committees were set up in every state and in local communities. These groups are training the people in proper nutrition requirements.

Food is as important in the present war as planes and guns and may well be the deciding factor, Dr. Sebrell pointed out. Today, he said, feeding the civilian population as well as the fighting forces is vital to keep up morale and provide the energy necessary for making armaments.

The gas industry, through its home service departments, is making a great contribution to the nutrition program and can do even more in stressing adequate diets and teaching housewives how to conserve food and at the same time provide adequate nutrition, he said.

Dr. J. Ernestine Becker, of the Johns Hopkins University, speaking at the Home Service Breakfast meeting, Tuesday morning, October 21, focused further attention on this subject when she said that the large number of boys rejected for the draft army had shocked the nation.

"At least some of the abnormalities that render these boys physically unfit are attributable wholly or partially to poor nutrition," she said. "Optimum physical development, resistance to disease and deferring of the characteristics of senility are markedly influenced by diet. A deficiency of any one of the 37 or more dietary essentials will produce a distinct and characteristic abnormality."

The secret of success is a combination of good balance and good timing, F. Alexander Magoun, professor of human relations, Massachusetts Institute of Technology, Cambridge, Mass., told the delegates, warning them that psychological breakdowns can be caused by wrong self-expression, inadequate



L. to R.: Burt R. Bay, Omaha; N. Henry Gelles, Philadelphia; James A. Brown, New York; Mary L. Sperry, Washington, (standing) E. J. Boothby

At the Harris, Ariz.

recognition and uncertain security. He said that a balanced personality calls for maintaining an open-minded, judicial attitude, working conditions kept free from needless irritations and an insistence on a common responsibility for results. His address was a highlight of the Tuesday general session.

Following this session, a general dinner was held Tuesday evening in the Hotel Traymore. With President Strickler presiding, more than 800 delegates witnessed the presentation of awards for outstanding individual and company achievement in the gas industry. These awards included: the Charles A. Munroe Award, Million Man-Hour Awards, A. G. A. Essay Contest Winners, and *McCall's* Magazine Award, all of which are described elsewhere in this issue.

Faith in America Urged

A special feature of the general dinner was an eloquent address by Dr. Norman V. Peale, pastor, Marble Collegiate Church, New York on "The Faith of America." Warning that we all make the mistake of taking freedom for granted, he pointed out that we have only enjoyed freedom for a century and a half, which is a short time in world history. "Liberty is fragile and insecure," he said. "Liberty in America will not be lost by a conqueror from without, but by indifference from within. The Great Wall of China was never breached, but conquering hordes poured through the gates the individual keepers of which had been weakened." He said nations often go down from inner deteriora-

tion and urged the people to guard against this danger.

The second general session, Wednesday morning, opened with a penetrating discussion of "Promotional Policies in the National Emergency" by H. Carl Wolf, president, Atlanta Gas Light Company, Atlanta, Georgia. Mr. Wolf urged the gas industry to shape its promotional policies at this time with one outstanding objective—"that our companies and our industry emerge strong from this war period, capable of aggressively meeting the competitive problems of the peace period."

"Peace will bring with it a train of problems that will tax American industry and ingenuity to the utmost," Mr. Wolf said. "Today we have a seller's market and if we had only the present to consider it would be simple to disband our sales forces, cut out advertising and discontinue all promotional activities. But, our promotional policies

of the next few years must be planned for post war days. It is important that, by strength, adaptability, initiative, resourcefulness and organization, we be prepared properly and efficiently to perform our obligations and meet our challenge."

New Association Officers

PRESIDENT—George S. Hawley, president, The Bridgeport Gas Light Company, Bridgeport, Conn.

VICE-PRESIDENT—A. F. Bridge, vice-president and general manager, Southern Counties Gas Company, Los Angeles, Calif.

TREASURER—Ernest R. Acker, president, Central Hudson Gas & Electric Corporation, Poughkeepsie, New York.

DIRECTORS—TWO YEAR TERMS—Walter C. Beckjord, vice-president and general manager, Columbia Gas & Electric Corporation, New York, N. Y.; C. M. Cohn, executive vice-president, Consolidated Gas Electric Light & Power Company of Baltimore, Baltimore, Md.; Watson E. Derwent, vice-president, George D. Roper Corporation, Rockford, Ill.; Ralph L. Fletcher, vice-president, Providence Gas Company, Providence, R. I.; R. H. Hargrove, vice-president and general manager, United Gas Pipe Line Company, Shreveport, La.; D. A. Hulcy, president, Lone Star Gas Corporation, Dallas, Texas; Bruno Rahn, president, Milwaukee Gas Light Company, Milwaukee, Wis.; Louis Ruthenburg, president, Servel, Inc., Evansville, Ind.; E. J. Tucker, general manager and secretary, Consumers Gas Company of Toronto, Toronto, Ont.; H. Carl Wolf, president, Atlanta Gas Light Company, Atlanta, Ga.



Managing Director Alexander Forward, New York, and Past President Percy S. Young, Newark



At the natural gas meeting. Left to right: E. H. Poe, New York; Floyd C. Brown, Chicago; D. W. Harris, Shreveport; Watson E. Derwent, Rockford, Ill.; Robert A. Hornby, San Francisco; and Aribur F. Bridge, Los Angeles, newly elected vice-president of the American Gas Association



W. Alton Jones, New York, and Walter C. Beckjord, New York, past president of the American Gas Association

Turning to national advertising, Mr. Wolf said he firmly believed that this is the time to strengthen our national advertising and that we should study carefully our local advertising in each community. "Our industry's national advertising program is making friends for us everywhere. It needs further encouragement. Local advertising is a problem peculiar to each locality. We are seeing a rapid shift from appliance selling copy to institutional copy, slanted toward our industry's contribution to national defense. We have an established relationship to maintain with our local advertising media and it should be continued."

Mr. Wolf's address is published in full elsewhere in this issue.

Research Recommended

F. Marion Banks, vice-president, Southern California Gas Company, Los Angeles, in a forthright address, told the delegates that research must be started now to give long-term results after the present emergency is over and warned them that "research is not the sort of thing you can buy a pint or a quart of any time you feel you have the spare funds." It takes planning, organization, training and long continued application to get results.

Mr. Banks commended the gas industry for its recent organization of the Institute of Gas Technology which is now functioning in collaboration with Illinois Institute of Technology to train men for the industry, to pursue fundamental and applied research, and to collect and disseminate scientific information. He declared that it would not duplicate nor replace the important research work being carried out by the A. G. A. Testing Laboratories at Cleveland, but would form an additional agency for the benefit of the industry.

The organization and purpose of the Institute of Gas Technology were described by Dr. Henry T. Heald, president of the Gas Institute and president of the Illinois Institute of Technology. Both Mr. Banks' and Dr. Heald's addresses will be published in full in the next issue of the A. G. A. MONTHLY.

The concluding speaker of the session, Hugh H. Clegg, assistant director of the Federal Bureau of Investigation, Washington, D. C., declared that there has been as yet no foreign-inspired sabotage in this country. The

United States, he said, is carrying on a system of counter espionage which has been so successful that after the return of FBI agents who had studied operations in England it was not considered necessary to effect any changes in the work being done here.

Mr. Clegg appealed for the cooperation of all citizens in the work of the FBI and asked the gas industry to report any suspicious activities immediately to the bureau. He said that the government today is employing the scientific tools of crime detection to trap spies and saboteurs, and that the FBI's 23,000,000 records of fingerprints are currently useful in national defense.

"We should constantly teach Americanism and be tolerant of foreign groups but not tolerate any foreignisms that seek to overthrow the Ameri-

can way of life," Mr. Clegg counseled.

The final general session closed with the report of the Time and Place Committee by the chairman, A. W. Ambrose, Cities Service Gas Co., Bartlesville, Okla. It was announced that the next annual convention would be held in San Francisco, California, the week of October 5, 1942.

A fitting climax to the annual meeting was the general luncheon Wednesday which ended the 1941 deliberations. With President Strickler presiding, a large audience heard Dr. Allen A. Stockdale of New York deliver a stirring address in which he called for the preservation of the American system of business enterprise which had brought this country the greatest prosperity and happiness the world had ever known.

After "the Tumult and Shouting Dies"

(Remarks by George S. Hawley in accepting the office of President of the American Gas Association, Atlantic City, October 21)

I am not unmindful of the high honor which you have given me, nor am I deceived as to the great responsibilities which go with it, but we, the officers and the staff, know that with you, the members of this great association, standing with us, we can carry on successfully the work of our century-old yet ever new and progressive gas industry; perhaps not so successful in the monetary sense, but highly successful in performing our full duty and pleasure in crushing out of existence that ugliest of ugly things, Hitlerism.

Uppermost in our minds is the tremendous defense program in all its ramifications, and to this we pledge our constant and unswerving attention; nothing must interfere with it, to the end that "freedom shall not perish from the earth."

For a long time I was deeply concerned over the outcome of the terrible Titanic struggle which scourges the world, so much depends upon certain factors; but I have not now the slightest doubt, notwithstanding the gloom and terror all around us. My belief is profound in the ultimate destruction of the world's worst enemy of civilization. But my faith is not so strong in America being able after "the tumult and the shouting dies," to keep intact the economic fabric which has held the people of the United States together in the enjoyment of what we have called the American way of life.

The assumption of state, business and individual rights and powers by the Federal Government in the national emergency, the creation and maintenance of many administrative and operating boards to regulate and control industry, business, and agriculture, the building of great fighting machines in the army, the navy, and in the air—all these things and others of great importance have already markedly changed our mode of life; and no matter how sincerely official Washington may endeavor to return America to Americans in the essentials of democracy, it will be well-nigh impossible of accomplishment unless the great majority of the thinking people do their best, unselfishly and courageously, to adapt themselves personally and businesswise to the readjustment period, which will come after hostilities cease, and when from afar Peace shall beckon us to a fuller and holier life. If we succeed, as I pray we may, we shall once more be a happy nation and we shall also be the great uplifting force of the world.

Through it all, you and I and all true men and women of the country must maintain our faith, difficult though it may be, in the homely fundamentals which have made us great. We must possess and practice them, and also maintain intelligent self-interest, tolerance and dogged insistence upon what is right in government as well as business; and while we do not ask for a complete return to ante bellum times, we do ask that there shall be such balance between powers and obligations, responsibilities and opportunities, that the sovereign people shall in truth be sovereign; for only thus can the glory of the highest civilization be exemplified in our own blessed America.

The American Gas Association Is on the Job



Major T. J. Strickler

A GAIN it is our good fortune to foregather as friends and co-workers in the gas utility industry. We are the second oldest public utility enterprise in the United States. Present in this audience are workers in all branches and departments of the industry. Numbered among us are veterans whose entire gainful lives have been devoted to the gas business. Here, too, are those of the younger generation who constitute the reserves who will take over the key positions in the future. Should we desire to see in one place and on one occasion a typical national cross-section of the personnel of the gas industry—a composite of the human element which makes the gas business tick—we would find it here.

A. G. A. Has a Job to Do

Because of national developments, I shall depart from the usual procedure in a presidential address and not attempt to give you a technical summation of the many activities of the Association. A detailed description of these you will find in the committee reports and records of the Association. Instead, I shall discuss in as brief a manner as possible those activities which indicate specifically that this Association is on the job in the present emergency.

Some time ago, in Washington, I heard a man say (and I am in complete agreement with him) that this country has a job to do and that the sooner the job is completed, the better it will be for this country. The activities of this Association are an important part in the proper handling of that

* Vice-President and General Manager, Kansas City Gas Company, Kansas City, Mo.

By MAJOR T. J. STRICKLER*
President, American Gas Association

job, and I feel I can say to you that we have been on the job.

Although the gas industry is highly integrated, it is nevertheless a complex undertaking with some characteristics peculiarly its own. It cannot be advantageously considered as a whole without recognizing that it is a production business, a manufacturing business, a transportation business, a distribution business, a collection business, a

Presidential Address at A. G. A.
Annual Meeting in Atlantic
City, New Jersey, October 21.

mercantile business, a development business, and, finally, a business regulated in the public interest.

Other lines of enterprise may embrace some or most of these elements, but I doubt if any industry outside of our own includes all of them, and I have not overlooked the electric and water utilities which offer the closest comparisons. Each of these elements of our business has its special problems and superimposed on them are other problems affecting the industry as a whole. It is our task to solve them all in the light of what is good for the entire industry.

Through the instrumentality of a national trade organization, the American Gas Association, we are able to stage a meeting such as this, the 23rd of its kind. At the Gas Congress held at the Louisiana Purchase Exposition at St. Louis thirty-seven years ago, my late chief, Henry L. Doherty, speaking on the topic, "The Ideal Gas Association," said "Under proper conditions there should be one, and only one, gas association of national character."

It was not until fourteen years later that he saw his hopes become a reality. He helped organize the American Gas Association, he served faithfully for years as a member of its Executive Board and in other capacities. Until life itself was denied him, he continued to be interested in following Association affairs. The American Gas Association never had a more loyal supporter.

I mention this because we are so prone to overlook the importance of the human element in Association work. I suspect this is because we are joined together for the common advancement of all, the interests of the industry transcending those of the individual to such an extent that personalities are submerged far more than is the case in one's own company.

Industry's Official Spokesman

Looking at the A. G. A. objectively we say it is a mutual, nonprofit, voluntary membership organization, truly representative of the gas industry and thus qualified to function as the industry's official spokesman. We realize that problems affecting our industry require cooperative effort on a national scale for their successful solution. Thus, we think of the American Gas Association as a convenient means for making possible an interchange of opinion through centralized organization, group judgment, concerted action and strong leadership.

So much for a cold, matter-of-fact conception which arbitrarily ignores the altruistic side of human nature and fails to take cognizance of the all important public service aspects of our business. True, the American Gas Association is all the things I have just mentioned, and of necessity must be if it is to serve the gas industry effectively, but I also visualize it from another angle.

To me, it is an organization designed

to get the gas men together in one family for the general betterment of the industry in all of its various operations. Thus united, we have the personnel and the machinery to accomplish that one objective toward which all effort of a constructive and enduring nature should be directed, namely, a higher standard of service to the public. Success in doing this is sure to bring the gas industry public approbation in the form of an increased demand for gas fuel, and therein lie the financial rewards for you and for me. Yes, we are in business to make money, but the manner in which we make it is supremely important because our business is affected with a public interest.

Example of Teamwork

To put it pointedly, the American Gas Association is the sum of the humans in it. Its efficient operation is one reason for our nation's famed teamwork in business. In the ranks of its membership it inculcates enlightenment instead of selfishness, a generosity on the part of the big fellow to help the little fellow. To all of us it is demonstrating that the main secret of a successful business and a happy life is to climb from retaliation to reciprocity.

The high repute in which the Association is held has been earned to no small degree because of the sincerity, honor and integrity of its members,—in short, the character of its members. It is operated resolutely in a spirit of fairness, justice and equity, and we have an organization that will ultimately prevail over all obstacles.

The foregoing naturally suggests a consideration of ethics. The Association does measure up in this respect. Its affairs are carried on in the light of its moral and legal obligations. Its organization effort shows proper respect for the requirements of fundamentally sound society.

The American Gas Association is an agency of self-government and efficiency. It is an agency of democracy. And it is an agency for the preservation of fair competition.

Since its inception, it has always operated in the light of day and its transactions as well as its financial reports have been matters of published record available to the public as well as to its membership. In all of its operations it

has conducted itself in accordance with those ethical standards which are universally accepted today as the measure of honest and enlightened administration.

In the course of an address delivered earlier this year before an audience of fellow gas men, I stated that a great and beneficial change has come over industry in the valuation it now places on public opinion and the effort it is making to create and maintain favorable public sentiment. I then took occasion to point out that our thinking on this subject has advanced so far that should any person in our industry deliberately violate the commonly accepted ethics of good public relations we would consider him to be a menace not only to the gas industry but a liability to all industry as well.

Our Obligations

I believe you will agree with me that in the broader concept of public relations which we have come to acquire, we know it is supremely important that we engender good will among our employees, customers and security holders. This, however, does not dispose of all our obligations. There is a larger and much more important responsibility, namely, one involving the continuance of the industrial system under which this nation has prospered and with which all of us together either stand or fall.

Like other national industrial undertakings, if we do not deal wisely with our problems while they are ours to deal with, we may drift on until natural forces compel a solution of them in ways which may spell disaster for us. In other words, if the American Gas Association fails to keep pace with national thinking and changing public policy there should be little criticism if others seize the initiative which our Association cannot or will not assume.

The testing of a trade association comes when it is face to face with adverse conditions. No trade organization is worth its salt if during periods of stress and strain it cannot proceed with its work, borne up and maintained by the unfailing spirit and faith of its members one with another, and therefore, in their organization. Let it be said to the credit of the American Gas Association that it has successfully

survived war, depression, fuel shortages and other economic upsets. Through all of these trying experiences the Association's Executive Board has been a tower of strength in directing and limiting the activities of the Association to those immediately the most important.

The people of the United States have declared for a democracy. At the moment American industry is confronted with the serious obligation of demonstrating that an unlimited national emergency can be successfully coped with under a democratic form of government and that our business problems can be solved through cooperative effort and under the functioning of private initiative.

An Economic Asset Today

Let us be realistic, therefore, and face the issue. The American Gas Association has adapted its activities to the changing conditions brought about by the national emergency which is upon us and is an economic asset today in the nation's business structure. It is adequately meeting the special and extraordinary demands of the Government's defense program in addition to operating in the interest of the gas industry's customers and its security owners. To sum it up, the Association is on the job.

The temptation at this point is to become profound and to inflict on you a lengthy and boresome recital of testimony in the Association's behalf. This, I have no intention of doing. Instead, I shall refer in a general manner to a few Association activities of national significance. First, I invite your attention to the contents of the printed program of this meeting. Nothing illustrates better what an industry is thinking about and doing and to what end, than a program of its annual meeting. What is the one topic in this program that dominates practically every business session? It is national defense and the gas industry's vital connection with and contributions to this all-out effort: That is our answer to those who inquire what the gas utility men talked about most at their Atlantic City meeting.

And now as to the character of the meeting itself. It differs strikingly from those of other years. We have

packed into two and a half days what might normally be a four day affair. We have utilized the efficient device of the panel discussion, thereby securing group concentration on specific problems. In condensing and streamlining this annual meeting we have made it possible for our busy members to attend and return to their jobs at a minimum expenditure of time, thus cooperating directly in the Government's plea for increased man-hour efficiency.

I cannot recall when we have ever come together on an occasion like this without making provision for entertainment. But this time no such preparations have been made, other than the general dinner and the general luncheon. Candidly, we feel we can forego formal entertainment at a time such as this when the citizens of this country have been asked to adjust themselves to the sacrifices that must necessarily accompany an unlimited national emergency. We admit that business as usual is not in the cards, and the program of this meeting amply demonstrates that conviction. Let me emphasize that the members of the Association's Executive Board who planned this meeting did so on their own initiative, without prompting or urging from any quarter outside the industry. They merely sensed the tempo of the times and acted accordingly.

Our Record in Defense

The Association's record in supporting the Government's defense program is an illuminating one and a source of pride to all of us. As a matter of fact, the Association set up its Committee on National Defense before the war started in Europe. For two years prior to the conflict, Association Headquarters had assembled material that would prove helpful at some future date in view of the irresistible progress toward war. When war actually became a reality, the Association was in the enviable position of already being well prepared to serve its membership, having collected in advance of hostilities much valuable information from sources abroad as well as in this country.

We were among the first to offer the services and facilities of our industry to the appropriate departments of Government concerned with national defense. The Association originally volunteered its services on May 29, 1940.

Highlights of President Strickler's Address

We have the personnel and the machinery to accomplish the one objective toward which all effort of a constructive and enduring nature should be directed, namely, a higher standard of service to the public.

In our Association's operation is one reason for our nation's famed teamwork in business. In the ranks of its membership it inculcates enlightenment instead of selfishness, a generosity on the part of the big fellow to help the little fellow. To all of us it is demonstrating that the main secret of a successful business and a happy life is to climb from retaliation to reciprocity.

The American Gas Association is an agency of self-government. It is an agency of efficiency. It is an agency of democracy. And it is an agency for the preservation of fair competition. . . . In all its operations it has conducted itself in accordance with those ethical standards which are universally accepted today as the measure of honest and enlightened administration.

Membership in the Association is to me, as I am sure it is to you, a badge of honor, a proof of ambition, and a guarantee of professional consciousness.

There are two indestructible forces in the business world—organization and the capacity to work together for the common good. These may be joined with intelligent direction to make a trinity of power for advancement in any business enterprise. Such is the progressive manner in which the American Gas Association has functioned. That is why it has proven for twenty-three years to be a stabilizing influence in the gas business.

No gas company imbued with true industry consciousness can afford to be a non-cooperator. As a matter of fact, the problems facing all business today will require, before they are solved, a more intimate cooperation. Individualism, if persisted in, will but further delay the return of normal conditions. The crying need of the moment is for industrial solidarity.

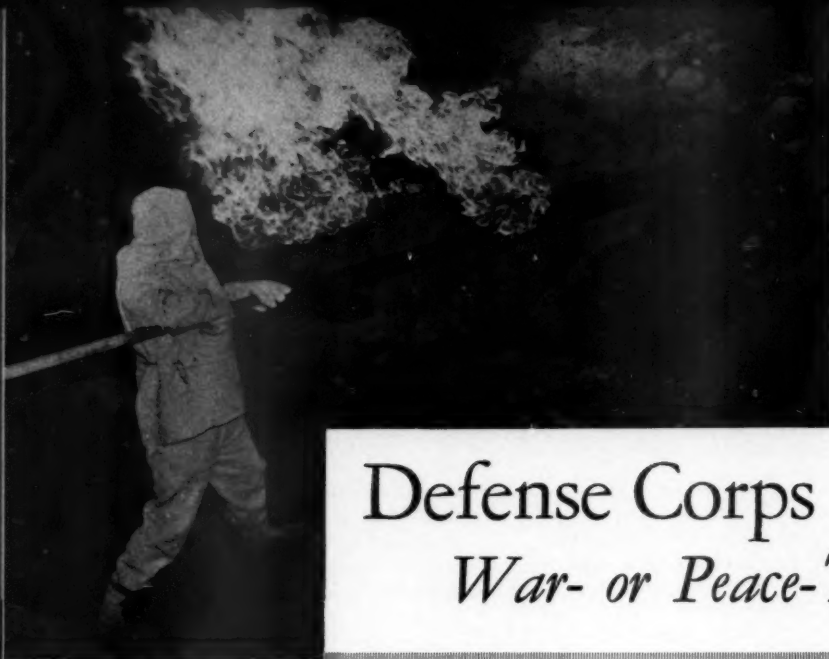
On January 22, 1941, I, as President of the Association, renewed this offer and it was gratefully acknowledged by William F. Knudsen. Again, on June 2 of this year, I addressed a letter to the President of the United States, stating that the Association, representing the natural and manufactured gas industries of the United States, welcomed the opportunity to pledge full support to the Government in the national defense emergency. This letter was subsequently acknowledged by F. H. LaGuardia, U. S. Director of Civilian Defense and by Leland Olds, Chairman of the Federal Power Commission.

When the Secretary of War appointed the National Technological

Civil Protection Committee, the Association was represented on its membership. Members of the Association have already received valuable material on plant protection produced by this Committee. Our own Committee on National Defense has collected and digested a large amount of source material, much of it coming from places in Europe that have experienced war. In obtaining this information from overseas, the Institute of Gas Engineers, Great Britain, has rendered valuable assistance. In addition, the aid of diplomatic channels has been invoked.

Thus, by anticipating the coming of war and by starting early to collect authentic data the Association has in its

(Continued on page 415)



An asbestos-suited gas man uses a cone-shaped plug on the end of a long pole to plug a break in the gas main. This and other methods of coping with emergency breaks are being studied in Brooklyn's defense program

Defense Corps . . . Trains for War- or Peace-Time Emergencies



Clifford E. Paige

FORMATION of a Defense Corps, a volunteer organization which is being trained to serve in any emergency, was announced recently by The Brooklyn Union Gas Company.

Serving an area containing 3,000,000 people with a great Navy yard, two key airports, miles of wharves, hundreds of defense industries and hundreds of thousands of homes, this progressive company has recognized its responsibility and set in motion the machinery necessary to cope with any emergency.

In announcing this step, Clifford E. Paige, president said:

"Should our country become involved in war, this territory would be the first visited by enemy bombers. In any event, the next few months and years will confront us all with extraordinary demands.

"That is why we have formed The Brooklyn Union Gas Company Defense Corps. Employees, physical and clerical workers alike, are volunteering for service in neighborhood units. They are learning the newest methods of stopping gas flow from broken mains. They are being trained in air-raid pre-

caution work, crowd handling, prone pressure and first aid.

"Our Defense Corps will achieve—I may say is already achieving—a dual purpose. This great volunteer group of employees, trained to supplement regular street and service crews, will help our company not only to meet the potential crisis of war but also to meet any emergency condition that may arise.

"Thus, the Defense Corps is more than an immediate precautionary measure. It is a timely vehicle by which to increase general employee knowledge of our business and thereby to improve our efficiency for the years to come."

George F. B. Owens, assistant vice-president, and Wilfred H. Weber, assistant engineer of distribution, were appointed co-chairmen of the com-

pany's Defense Committee which includes Clarence S. Goldsmith, assistant engineer of distribution as active head, Clyde E. Cheeseman, general superintendent at Greenpoint Works, and Joseph F. Miller, inspector, construction department. At recent meetings, these men have reported on the progress of plans for protecting works property, staged a demonstration of new methods for stopping the flow of gas and making repairs in broken mains, and discussed plans for protecting employees in office buildings.

Briefly, the defense plan provides for the following:

1. Facilities for establishing and maintaining close cooperation between the com-



Department and division heads of The Brooklyn Union Gas Company listen to Defense Committee Chairman George F. B. Owens stress need for the company's preparedness program. Other speakers outlined work already done to assure maintenance of gas service in any emergency

pany's defense activities and those of the civil authorities.

2. A Defense Corps, consisting of employees who have volunteered and who will undergo special training calculated to prepare them for emergency service.

3. Thorough examination of the company's manufacturing facilities to provide the greatest possible flexibility of operation and plant protection.

4. Comprehensive study of the distribution system and of methods for stopping the escape of gas under all conceivable conditions. Also study of technique for effecting even more speedy repairs.

5. Plans for protecting office buildings and the large numbers of employees concentrated in such buildings.

Follow Police Set-Up

The Defense Corps is being organized on the basis of the Police Department's precincts. There are 34 of these in the company's territory. In each precinct a volunteer squad of company employees will be organized, its size depending on the size of the precinct and the amount of company property within the precinct.

Each squad will be headed by a captain who will be responsible for the organization and training of the squad. The captains will be men from the Manufacturing and Distribution Departments who are familiar with work on the company's property located in the streets. The captain of the squad will have a map of his territory on which are shown gover-

nors, valves, and high and low pressure mains. The squad will be provided with valve keys, wrenches, rope and flashlights.

The 34 squads will be grouped into defense areas, each under a supervisor who will be an administrative man responsible for the functioning of the squads of his various captains. The area supervisors will be responsible to one top operating man or person designated by him. Each group will have a second in command to carry out necessary duties in the absence of his immediate supervisor.

The men in the squads will be trained in first aid, particular attention being given to prone pressure and the care of burns. They will also be instructed in the duties pertaining to shutting valves and meters, roping off areas and handling spectators. They will be taught how to stop gas flow by every means within the limits of the equipment

Lewis S. Troell shows Hugh H. Cutbrell the device which he and W. P. Wallace have developed for drilling, tapping and screwing a standpipe into a main. Device may prove useful in Brooklyn Union's defense program. Its use promises to reduce time required for connecting standpipe to main



Association, at its annual meeting in Atlantic City last month by Mr. Goldsmith as follows:

Emergency Repair Methods

"Several methods have been developed to deal with situations in which sections of gas mains have been broken leaving the ends protruding into a large hole or crater. The first means of closing off a gas main that comes to mind is the use of a valve, and where valves have already been installed on mains this unquestionably would be used. However, it is not common practice in the gas industry to install valves on low pressure mains and consequently other means have to be developed which will be equally efficient.

"Pictures have been shown in this country of conical-shaped plugs being used in England. In actual practice such a means of stopping the flow of gas from the end of a broken main is not only quick but efficient. The pic-



with which they will be supplied. They will also be taught whom to call and how to report damage.

As soon as the regular operating force reaches the scene, the Defense Corps personnel will make themselves available for work assigned by the operating supervisor and the completion of the work will then pass over to the operating department.

Recognizing that gas utilities must be prepared to cope with a large number of breaks occurring simultaneously in widely separated places, methods are being evolved for quickly stopping the flow of gas and making emergency repairs. These were described before the Technical Section, American Gas



Close-up view of repair crew demonstrating use of new modified Dresser couplings and sleeves for making emergency repairs on a broken main. These devices eliminate need for sawing off jagged ends of main. The roped off area in the second picture above shows supervisory men watching the repair crew at work. Immediately above is a portable gasoline-powered unit, complete with tank, which is used to force grease into a broken main, thus plugging the main



George F. B. Owens



Wilfred H. Weber



C. S. Goldsmith



C. E. Cheeseman



Joseph F. Miller

Recently organized Defense Committee of The Brooklyn Union Gas Company

tures show the conical-shaped plug being used at the end of a long pole. Experience has proved that this is not the most efficient method of handling the plug since it is not always possible to get near enough to the broken end of a main to utilize this method effectively.

"If a steel cable of sufficient length is stretched across the bomb crater by men on either side, the plug may be suspended in a cradle in the center of the cable, lowered to the depth of the end of the main and then advanced to a point where the conical end actually enters the pipe. The cup shape of the blunt end of the cone enables a third man to insert the end of a long pole into the cup and to push the plug home inside the main. With this setup the man who is delegated to push the plug in does not necessarily have to be directly opposite the end of the main. This is a tremendous advantage because if the gas from one end of a broken main is burning, it goes without saying that gas from the other end of the broken main will also be burning. Consequently the man who uses the pole to push the plug in will have to stand to one side of the burning gas. In any case it is well to have the man using the pole provided with an asbestos suit so that a shift of wind will not blow the gas flame against him with the possibility of bodily injury.

Bagging Off Gas Mains

"Another quick method of closing off a gas main is the old familiar one of using a bag inflated with air. But here again, if bags are going to be used, standpipes must have been installed previously to enable the operators to insert the bag into the main quickly. In certain low-pressure mains of large diameter it is well to provide such standpipes at intervals so that in

case of a bad break the main could be closed off quickly.

"Up to and including 12-inch low pressure mains, a heavy grease may be poured into the main by means of a service pipe in sufficient quantity to plug the pipe and effectually shut off the gas. This method has the disadvantage of leaving the pipe with a large amount of grease inside and with no means of removing the grease other than that of digging up the main. Eventually a material will be found which can be readily dissolved and washed to a drip pot.

"After the gas has been shut off the problem then arises of quickly repairing the broken main. Considerable thought has been put into this problem and by working with the engineers of the Dresser Manufacturing Company, a method of repair has been worked out which is the last word in simplicity. This method is difficult to describe effectively, but the Dresser Manufacturing Company will shortly issue pamphlets with full descriptive material covering the idea."

Safeguarding Employees

Any comprehensive plan for maintaining gas service in an emergency must necessarily include provisions for affording the best possible protection to company offices and the large numbers of employees concentrated in these offices. With this in mind, the company has evolved a basic pattern which would be applicable to all important offices.

Recommendations for emergency procedure are divided into three groups. Group No. 1 represents those activities which should be placed in effect immediately, including the storing of necessary fire-fighting and emergency material at strategic locations, instruct-

ing employees as to the defense plan and safety zones, first aid instructions, checking of valves, establishing a system of identification, etc. Group No. 2 consists of precautions to be adopted at some later date if and when the city might be threatened with an air raid, and includes such items as providing sandbag protection, roof patrol, and safeguarding communications. Group No. 3 includes precautionary measures to be taken during an actual air-raid emergency.

Plant Protection Steps

To provide greater security against air attacks aimed at the gas works, every possible precaution is being taken to safeguard manufacturing properties in the event of an emergency. Ansel B. Huyck, engineer of manufacture of the Brooklyn utility, has held meetings with superintendents in charge of operating properties to consider defense problems and certain measures have been taken and others are being investigated.

Photo-identification cards bearing the employee's signature have been provided as well as distinctive badges of yellow and red for visitors and contractors' men. Deliveries are inspected and checked before entering the plant, and a man of special qualifications heads the watchman forces. Cyclone fencing has been installed at plants and holder stations and floodlight installations have been made. Heavy wire screens protect windows and doors of buildings adjacent to the street and increased stocks of important materials have accumulated.

Of particular interest to operating men is the fact that at the Greenpoint works an auxiliary connection is being made between the producer gas plant and the water gas plant. This is pri-

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Promotional Policies . . . A Realistic View of Gas Selling in the Emergency

THE gas industry is ALL OUT for national defense. There is a universal willingness to make any sacrifice and a determination to put forth any effort required to insure defeat of the



H. Carl Wolf

world tyrants. Immediately before us are many problems, and beyond defense comes PEACE with additional problems to test American ingenuity. In the offing are a new set of rules and regulations for playing the great American game of business, a new economy which will plant us in strange paths and, for the gas industry, a competitive situation before which all past competition pales.

Look to Post-War Days

It is toward these post-war days that our promotional policies of the immediate future must be pointed. But just as each day brings new angles to domestic as well as world events, making of them but a transitory panorama, so must I admit that the thoughts I shall express here this morning may be out of focus before noon, out of date before evening and actually repugnant to our intelligence tomorrow. This gives me the happy privilege of changing my mind even while speaking it.

There are two headings in the usual discussion of promotional activities—first, selling appliances and second, selling our service. Let me touch on them lightly and pass quickly to a broader discussion. This is a seller's market and it would be so easy to dis-

By H. CARL WOLF

President, Atlanta Gas Light Co.,
Atlanta, Ga.*

band our sales forces, cut out advertising and discontinue all promotional activities—simply sit supinely as business comes to us. But let me ask you if you think quite as highly of a manufacturer who has perhaps done these things in your territory and seems to display no further interest in your business. Would not our customers think the same of us if we did likewise?

We willingly see our materials sacrificed for national defense as appliances become more difficult to obtain. But, of what are available, we should sell and sell aggressively. Campaigns, spectacular promotions and sales contests as a means to an end in themselves are out, but to disband our sales organizations without regard for the future and for the individuals in them, to discontinue advertising and stop promotion would, it seems to me, be doing more than any reasonable defense program could expect of us.

Sell Quality Appliances

As to the nature of the appliances which our manufacturers should make from the reduced quantity and changing quality of materials available to them, I presume we would find much disagreement—whether to cater to the small customer with limited cash, to point toward defense housing and kindred projects, or to confine ourselves to high-grade, high-priced equipment. With an eye to that competitive future, it is my thought that we should put the bulk of our efforts on selling high grade appliances so long as we do not do an injustice to those of our customers who actually need cheaper ones. I hope that the CP range program can be pushed even harder than before. I would like to see a CP program for other appliances and concentration on the better refrigerators and water heat-

ers. How much tougher it will be for our competitors in the future to take away a customer who has been using a high grade gas appliance, giving satisfactory, carefree service which bids fair to continue for many more years! On the other hand, if we load up our lines with cheaper appliances, will we not play into our competitors' hands a few years hence?

Let us be realistic about the Peace era to come. Urged by the necessity of the present emergency and by government action, an excess of electric power facilities is being built up. Surplus energy from these facilities will be unloosed with all the fury and ballyhoo of which our great sister-industry is capable, backed by the many proponents of its type of service within government.

Strong Competition Ahead

Encouragement in this movement will come from a number of manufacturers who are now gearing their plants to make war products and who will find that these same plants can be converted for the making of miscellaneous electric appliances. The necessity for providing jobs will doubtless result in a further push for public development of water power. In short, we can look for an intensive campaign on many fronts to overwhelm the American public with the idea that this is truly an electric age.

Oil producing, refining and transportation facilities are being expanded beyond normal needs. Coal production is being stepped up and the industry is giving thought to an aggressive research, promotional and selling effort. Science may turn to further consideration of the sun's rays as a source of heat. Truly the market of the gas industry for heat is to be attacked on all sides. But we can and will protect ourselves.

An adequate promotion policy at this time must have one outstanding objective—that our companies and our

Address before General Session, American Gas Association Annual Meeting, Atlantic City, N. J., October 20-22, 1941.

* Chairman, A. G. A. Industrial and Commercial Gas Section.

industry emerge strong from this war period, capable of aggressively meeting the competitive problems of the peace period. We have a selling job tomorrow and every sinew must be strong enough to support the all-out effort for that job. We must be strong in finance, in personnel and in organization, strong physically and in the favor of the public and, most important of all, strong in our determination to adequately serve the public.

To the extent that we waver now, lose interest, get discouraged, stop pushing, become self satisfied or plan poorly, just to that extent will our post war job be the more difficult. To the extent that any part of our organization, any part of our industry, any policy adopted is weak, vacillating or not adaptable, to that extent will our post war effort be the less effective. Our industry of tomorrow may seem unrelated to the one of today but the important thing is that by strength, adaptability, resourcefulness and initiative, we be prepared to properly and efficiently reach our objective and meet new challenges. Fortunately a moratorium on the mad rush for business and sales presents to us an opportunity now to review thoroughly what we have been doing and to plan more calmly for the future.

Set Financial House in Order

Paramount is the necessity of keeping our financial position strong. Earnings must be sufficient to meet increasing costs and heavier tax burdens. Our capital structure should be flexible enough to provide expansion funds in the future. Our properties must be maintained in sound physical condition to meet increasing demands. All of this may be outside the scope of this paper but it points to the necessity for continued sales and careful planning.

As the first important step in our promotional policy, we might review our rate situation. Over the years our industry can point to a creditable record of downward revisions. It has and doubtless always will be active in devising rates to fit new conditions and ever ready to try out new forms of rates. This is no time to even think of reducing rates for the rising tide of costs may force us to higher ones before long. And there are always difficulties in the way of raising our rates.

However, a horizontal movement designed to meet new conditions, to minimize inequities which may have crept in and above all to effectuate flexibility may be justified. A re-study of automatic adjustment factors, increment costs, the distribution of burdens on different customers and the forms of our schedules might well be undertaken at this time. From such a study an entirely new system of rates might emerge but the important thing is that we begin now to plan a rate program which will be flexible enough to meet the new conditions which will arise and put us in a position to combat the coming competition.

Stay on "Main Street"

Let us next consider the condition of our physical property. Perhaps we have been wondering if a better office location would be warranted, better merchandise displays advisable, better looking buildings desirable or a better appearing and maintained fleet of trucks a good investment. Perhaps we just haven't gotten around to putting our service men in uniform, modernizing our telephone and other public contact practices. Perhaps the matter of leakage and unaccounted for gas has seemed entirely unrelated to public relations. It may not seem worthwhile to do neat, expeditious street work and then tell the public about it on our barriers, trucks and other places. Perhaps streamlining of business practices and policies has seemed to be something apart from an industry such as ours. But these are only steps in moving the gas industry from "Gas Alley" up to "Main Street." Our own morale is helped when we dress up and the public is more likely to have confidence in us when we exhibit enough confidence in ourselves to move in the best circles.

If we are to emerge strong from the war era, we must have strong organizations. Personnel problems are more important today than ever before and will become even more so. A new relationship between capital and labor is in the making. The unfortunate labor disturbances of the past few years have caused some business men to question the worthwhileness of putting forth efforts for their employees which seem to be unappreciated. We cannot afford to allow ourselves to fall

into this habit of thinking, however. We have an investment in our personnel. To drop employees if there is any chance of using them economically is but adding to the distortion of industry going on today. Ours is one of the large industries in this country. On us rests a great responsibility—a responsibility to our public, to our employees, to our owners, to our managements, yes to our system of free enterprise. A responsibility to build and maintain an organization and an industry basically sound for the true rendering of service.

Keep Sales Force Intact

What to do about the sales personnel may be a question. Surely those who have proved themselves as good employees and as good salesmen have a place in our organizations where their selling ability, both actually and potentially, will be a great factor in meeting our future competition. Our industrial salesmen, for example, have an opportunity to work on problems on which our customers have been seeking help and for which we have not had time. The same salesmen should be making continual contacts with our tried and true friends among our industrial customers and ever searching for new friends who will be our customers tomorrow. Territorial salesmen may not be able to do much cold canvassing for appliances but they too can be cementing old friendships and making new ones, giving evidence of our interest in our customers. Many a heating job is being done by our competitors today because of a lackadaisical attitude on our part years ago. This should not be allowed to happen again.

Now is the time, it seems to me, for intensifying our employee educational program. Our employees generally are proud of their jobs and anxious to properly interpret to the public the policies and practices of their companies. To do so requires specific facts, careful training, adequate supervision. Might it not be timely for our Association to review the several excellent sales and employee training courses gotten out in the past, re-orient them in the light of the present and make available a training program flexible enough to prepare us for the selling job ahead. Since our job is to furnish a medium for cooking, should not all

our employees know something about cooking? Wouldn't some information about diets and foods help in getting a story across to our public? This points, it seems to me, to a more important place in our organization for our Home Service Departments, and for kitchen planning and perhaps even suggests the advisability of a new department touching on the relation of living habits (as affected by our business) and public health.

The difficulty in getting appliances and materials suggests this as an excellent time to emphasize the long life and reliable service of existing gas appliances. As installation and service work slack off we might well undertake the inspection of all of our customers' appliances to make certain that they are in good repair. A careful catalog of all appliances on the customer's premises can be made at the same time so that we shall know where our prospects lie when large scale selling can again be resumed.

Service Essence of Sales

Opportunities for home demonstrations, for home service instruction and for many other valuable promotions will present themselves. This will give us an opportunity to learn more about the habits, desires and preferences of our customers, to teach them how to save—a most appealing thought in the midst of those rising prices—to answer questions about our service and equipment, to build confidence in both. Such an inspection would require a close tie-in of service men, salesmen, home service workers, credit men and other groups of employees.

In training crews for such service, we therefore have an opportunity to bring together the various elements of our organization in one grand service effort which, after all, is the essence of a successful selling job. Many businesses will take a superior attitude while this seller's market is on; in contrast we have a real opportunity to promote ourselves for the future by exhibiting a real interest in the customer's welfare now.

What shall we do about advertising in these troublous times? I believe that this is the time to strengthen our national advertising and that we should study carefully our local program in each community. Our industry's na-

tional advertising program has been a great success. It is making friends for us everywhere and is above criticism unless, perchance, the Administration, in what I am sure would be an entirely unwarranted and misdirected effort, should attempt to discourage all advertising. Local advertising is a problem peculiar to each locality. This may be the time to extend or to restrict the number of local media and certainly the style of our copy will be changed. No longer should we talk about our appliances as a matter of dollars but we can well talk about our service and our relationship to our customers. Our advertising theme will be of an institutional nature, no doubt slanted toward national defense and the important part our industry is playing therein. Much excellent copy has already appeared along this line. To the extent that finances permit, I hope that we shall continue our local advertising on

a high level and actually increase our national advertising.

Turning outside the industry for a moment, let us look at the matter of promotion among that powerful army of molders of customer opinion, the appliance dealers, plumbers, architects, realtors, engineers and contractors. To an increasing extent have we relied on these groups. On them depends in large measure the success of our industry in the future. Our relationship with them should be reconsidered and strengthened. Each group requires a different kind of consideration, of course, but we shall doubtless find a general lack of familiarity with the rapid advance of the gas industry.

Let us be realistic. The profit motive is all that keeps any of these groups favorable or unfavorable to gas. I believe that we can provide that profit motive, not by subsidy but by hearty

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Gas Industry Is Here To Stay Says Research Authority

THE following statement by Laurence E. Frost, head of the Research and Development Department of the Consolidated Edison Company of New York, was presented on October 22 at the 23rd annual meeting of the American Gas Association by T. J. Strickler, president of the Association.

"So far as bare costs are concerned, it seems clear that a combination gas and electric company cannot afford to promote electric cooking, except on the basis of a price to its customers higher than the price for gas. As between competing gas and electric companies, it seems clear also that the gas company 'has the edge' and—so far as costs are concerned—can win in the long run in any 'knock-down-and-drag-out' competition.

"Of course, costs are not the whole story. The public does not necessarily choose the cheapest service. A classic example is Henry Ford's experience, which showed plainly enough that the public wanted style and convenience and would pay for it. The gas industry is doing well from this standpoint. Its new lines of ranges and water heaters are attractive and serviceable, and they

have had very good public acceptance.

"The conclusion which I commend to you is, that aside from the unpredictable possibilities of social and economic upheaval, the gas industry is here to stay. I do not visualize the future of electric utility systems in terms of any major swing-over from gas use.

"The really economic market for electric ranges and water heaters, then, is among those of our customers who do not have gas service available. In the entire state of New York they number about 400,000— $\frac{1}{8}$ of our present electric customers. Very substantial progress has already been made in selling that market.

"Those of you who are in the habit of wishing that electricity might replace all gas service in the home will probably feel that I am offering you a gloomy set of conclusions. For my part I would think it a gloomy situation indeed if we were obliged to withdraw from the people of New York State the advantage which over 80% of them now possess, in the availability of a highly economical and convenient supply of heat by gas."

Fuel Coordination... *Natural Gas*

Industry Organized To Assist Government

ORGANIZATION of the natural gas and natural gasoline industries for defense under the Office of Petroleum Coordinator was begun October 23 at a conference in New York. Participants were Robert E. Allen, director of production, Office of Petroleum Coordinator; Justin R. Wolf, counsel, and Paul Raigorodsky, who is in charge of the natural gas and natural gasoline section of the OPC; Major T. J. Strickler, past president of the American Gas Association, and J. French Robinson, chairman of the Association's Natural Gas Section.

The conference was held under the auspices of the Association's Natural Gas Section. Mr. Robinson served as chairman of the meeting and after formal presentation of papers by Messrs. Robinson, Strickler and Allen, general discussion took place. More than 100 representatives of natural gas and gas companies were in the audience.

Declaring that the OPC has created and is in the process of organizing a natural gas section, Mr. Robinson explained that the purpose was to coordinate defense activities of the industry with respect to production and



Meeting of representatives of the Office of Petroleum Coordinator and the natural gas industry, New York, October 23rd, under the auspices of the Natural Gas Section of the American Gas Association. From left to right: Justin Wolf, Paul Raigorodsky, T. J. Strickler, Robert E. Allen, French Robinson and E. Holley Poe

transportation of natural gas, and the processing and manufacture of derivatives of natural gas, (including natural gasoline, liquefied petroleum gas, carbon black and re-cycling operations), and their transportation. He said the natural gas industry welcomes the opportunity to pledge its whole-hearted devotion to maximum effort for the

duration of the emergency. "This we do as individuals, for our companies and for our industry," he declared.

The Association's national defense activities both before and after the war started were described by Major Strickler. He emphasized the Association's willingness to be of service to the OPC and expressed the hope that the meeting would be productive of good results.



Coordination districts for natural gas industry

OPC Appoints Weymouth

In the course of his talk, Mr. Allen announced that Mr. Raigorodsky of his staff had chosen Thomas R. Weymouth of New York as one of his consultants. Two days previous, Mr. Weymouth had been the recipient of the Charles A. Monroe Award at the Association's 23rd annual meeting in Atlantic City.

In defining the set-up of the OPC's natural gas section, Mr. Allen said that the country had been divided into five regions or districts and the following had accepted appointment as regional chiefs of the districts: Frank Brewster, president, Bradford-Quadrangle Drilling Corp., for the eastern seaboard; W. K. Warren, president, Warren Petroleum Corp., for the Mid-West;

D. E. Buchanan, president, Hanlon-Buchanan Co., for the South; Robert W. Hendee, general manager, Colorado Interstate Gas Co., for the Far West, and William Moeller, Jr., vice-president, Southern California Gas Co., for the Pacific Slope.

Mr. Allen's address outlining the program of OPC follows:

"The problem we face today is an important one despite the fact that it may be simply phrased. It is imperative that there shall be maintained adequate supplies of natural gas, natural gasoline, and liquefied petroleum gases to meet the constantly expanding demands of the defense program and essential civilian needs. Natural gas, natural gasoline, and other derivatives are among the nation's prime energy resources and constitute a vital component of the nation's fuel supply.

"These products must be utilized in the current defense program to the utmost limits of their potentialities and the activities of the industries concerned with producing, manufacturing, transporting, and selling these products must be coordinated with that supreme national defense effort. This job is not a simple one. It is and it will be a highly complex task to coordinate the resources of a 4 billion dollar industry with the activities of a 100 billion dollar defense program. But the job will be done, and you men—along with representatives of the Federal Government—are the men who will do it. . . .

Natural Gas Section Established

"To that end the Office of Petroleum Coordinator has taken and plans to take the following action. A Natural Gas and Natural Gasoline Section has been established within the Office of Petroleum Coordinator. In charge of that section is Paul Raigorodsky, a gentleman whose technical and scientific accomplishments in the natural gasoline industry qualify him as an expert of high rank.

"Mr. Raigorodsky has chosen as one of his consultants Thomas R. Weymouth, whose knowledge of and skill in the natural gas industry needs no comment from me. We intend to staff each of our district or regional offices with men who are well qualified by experience and accomplishment as experts in the natural gas and natural gasoline industries. Typical of the men who have indicated their willingness to accept appointments as regional chiefs of our natural gas and natural gasoline sections are Frank Brewster, W. K. Warren, D. E. Buchanan, Robert W. Hendee, and Wm. Moeller, Jr., all of whom are well known to each of you. The regions or districts which have been established are shown on the accompanying map.

"The job of the Natural Gas and Natural Gasoline Section will be to coordinate the activities of the natural gas and natural gasoline industries and the activities of the various Federal and State governmental agencies having responsibility with respect

to these industries with the national defense program. The duties and responsibilities of this Section and the nature of its work will be familiar to each of you whose corporate organization possesses an executive committee or other group whose task it is to coordinate and harmonize the varying and manifold activities of the many branches of your businesses.

"Our action in this respect is taken pursuant to the terms of the letter of the President of the United States dated May 28, 1941 designating Secretary Ickes as the Petroleum Coordinator for National Defense. In that letter, the President said that one of the important problems to be solved in relation to the defense program was 'the proper development, production, and utilization of those reserves of crude oils and natural gas that are of strategic importance both in quality and location.'

"The real effort is to come from the industries themselves at the scene of their operations. Accordingly, the Petroleum Coordinator proposes to enlist the support and aid of you gentlemen in the following fashion. The Petroleum Coordinator will appoint a Natural Gas and Natural Gasoline Industry Committee for each of the five

miliar with production, transportation and sale of natural gas, and representatives of the natural gasoline industry familiar with the functional divisions of that industry. These committees should also represent a balance between independent organizations and those that are subsidiaries of the large holding companies.

"The fundamental responsibility of these committees will be to advise the Petroleum Coordinator with respect to action which they believe should be taken or recommended by him in order to insure the maintenance of an adequate supply of natural gas and natural gasoline to meet defense demands and for essential civilian uses. These committees are not to initiate action by themselves or amongst the industries. They are really advisory consultants to the Petroleum Coordinator with respect to the natural gas and natural gasoline industries. Their importance cannot be overestimated. For frankly, it is these committees, drawing on the wealth and wisdom of their experience, who will provide the government with the facts upon which the government can take or recommend action. Let me assure you now that the one cardinal policy of the Petroleum Coordinator's Office is 'get



OPC natural gas section leader, Paul Raigorodsky (second from the left), meeting with natural gas industry leaders in New York. Left to right: Robert W. Hendee, Mr. Raigorodsky, W. K. Warren, Frank Brewster, and Thomas R. Weymouth. Mr. Weymouth was chosen as Mr. Raigorodsky's consultant on natural gas problems

regions or districts into which the country has been divided. You gentlemen of the industry are requested to submit nominations for membership on these committees.

"A word or two about these industry committees. They will be independent committees parallel with the existing petroleum industry committees but in no sense or in nowise subservient to these petroleum industry groups. The chairman of each district Natural Gas and Natural Gasoline Committee will serve on and be a member of each District General Committee along with the chairman of each of the functional petroleum industry committees presently operating in each district.

"Present plans are to limit these natural gas and natural gasoline committees to 8 members for each district. As time goes on, this number may be expanded. These committees should represent all phases of the industries concerned, that is, men fa-

the facts.' Both Secretary Ickes and the Deputy Coordinator, Mr. Davies, are men with full respect for 'facts'; they have time and again stressed the imperative need for having all facts and data before action shall be taken. These industry committees are to be the source of these all important facts.

"I would like to assure you now that the character of these industry committees as fact-gathering, advisory agencies whose activities follow upon direction, recommendation or request from the Office of the Petroleum Coordinator, has been approved by the Department of Justice with respect to the anti-trust laws. I might also add that all recommendations of the Petroleum Coordinator, whether directed to the public, to the industry, to individual persons or companies in the industry, or to the industry committees are cleared through and have the express approval of the anti-trust divi-

(Continued on page 413)

Chairman H. D. Hancock addressing the Natural Gas Section. Other speakers on the platform are: T. R. Weymouth, Munroe Award winner; incoming Chairman J. French Robinson; H. C. Cooper, Elmer F. Schmidt, and Davis M. DeBard



Natural Gas

... Plays Leading Role in Defense Production

THE force of defense spending, the effect of priorities, the demand for more and more refined fuel energy, the effect of the draft and a myriad of other problems stemming from the huge national defense undertaking have wrought changes in the natural gas industry in recent months, it was brought out forcibly at the Natural Gas Section meeting in Atlantic City, N. J., October 20, during the annual meeting of the American Gas Association. A feature of this meeting was a panel discussion of regional problems presented to gas utilities in the defense program and a wealth of information was developed.

Under the leadership of H. D. Hancock, president, Gas Advisers, Inc., New York, N. Y., chairman of the Section, the outstanding program was presented to a capacity audience. In addition to the defense panel discussion, the delegates heard a progress report of the Main Technical and Research Committee, a timely description of civilian protection and gas utility operations in wartime in England by Davis M. DeBard, vice-president, Stone & Webster Service Corp., New York, and a valuable technical paper on "Alterna-

tive and Auxiliary Gases from Liquefied Petroleum Products" by C. George Segeler, utilization engineer, American Gas Association.

J. French Robinson, of Cleveland, president of The East Ohio Gas Company, Cleveland, Ohio, was elected chairman of the Natural Gas Section for the new year. Burt R. Bay, president of the Northern Natural Gas Company, Omaha, Nebraska, was named vice-chairman.

Defense Requirements Expand

Changes in the natural gas industry since the Natural Gas Convention in Dallas last May have been principally the product of the expanding requirements for industrial gas by plants engaged in national defense production, for all classes of service by military and naval establishments and for domestic and commercial gas by additional customers and new or expanding areas, Mr. Hancock reported. In constructing additional facilities, he said, the natural gas industry is faced with the difficulties and delays common to other large users of steel products, in obtaining deliveries of the required materials.

"Such problems relating to material

procurement are being approached by the industry with recognition of the many factors involved in effecting the wisest utilization of our national resources during the period of readjustment of industrial activities," he said. As one of its contributions toward the best solution of these problems, the industry is continuing its efforts to be economical in the use of steel and other essential materials through the continued application of the results of technological advancement, and the seeking through research of further improvement in the production and utilization of these materials."

Since steel pipe is a major item of material required, Mr. Hancock advised the members of the industry to seek a reduction in their pipe tonnage requirements as a result of continued improvement in the quality of pipe material and processes of fabrication of finished pipe, as well as advancements in methods of protecting pipe from corrosion and in selecting most economical combinations of size, wall thickness and pressure which will adequately and safely serve the purpose.

He stated that the natural gas industry is also "minimizing its requirements

Annual Dinner of the executive, managing and advisory committees of the Natural Gas Section, held in Atlantic City, October 20





Chairman-Elect J. French Robinson and retiring Chairman H. D. Hancock in a jovial mood

for new steel materials for construction and maintenance purposes by reclaiming casing, pipe, compressors and other materials from locations where they are no longer needed and reinstalling them at points where they help to meet national defense requirements.

"Under no other circumstances have the energy and resources of the natural gas industry been so fully employed as during the present participation in the common cause of national defense," Mr. Hancock declared. "The industry is demonstrating its willingness to voluntarily devote the full extent of its human and material resources to the successful solution of the many economic and technical problems arising under the present extraordinary conditions."

Report on Gas Research

Progress reports covering the work of the Main Technical and Research Committee, Howell C. Cooper, chairman, were presented bringing this work up-to-date since the May convention. Elmer F. Schmidt, Lone Star Gas Co., Dallas, Texas, reporting for the Pipeline Subcommittee, described the work done on the code for pressure piping and the gas hydrate study being conducted by W. M. Deaton and E. M. Frost, Jr., of the United States Bureau of Mines. The report of the Subcommittee on Gauging Gas Well Deliveries was presented by E. L. Rawlins, Union Producing Co., Shreveport, La.

At this point in the program, C. George Segeler, A. G. A. utilization engineer, presented a comprehensive study of "Alternative and Auxiliary Gases from Liquefied Petroleum Products," which aroused great interest at the meeting. This paper, which is

available to members of the Association, offers a guide to the selection of proper mixtures of LP-Gases with carrier gases to attain interchangeability with the normal gas supply. Its scope may be judged from the following divisions which it covers: The Problem, Interchangeability of LP-Gases, Exploring the Carrier Gases, Present Status of LP-Gas Use, Direct Use of LP-Gas-Air Mixtures for Replacing Natural Gas, Application of LP-Gases To Enrich Water Gas as Natural Gas Substitute, Enriching Manufactured Gas. Mr. Segeler's paper concludes with a selected bibliography covering use of LP-Gases by gas utility companies.

Of intense interest to the delegates was the next paper by Davis M. DeBard, vice-president, Stone & Webster Service Corp., New York, entitled "England—Its Civilian Protection and Gas Utility Operations in War Time." Mr. DeBard praised the heroism of employees of British gas companies and said that despite air raids gas service has been maintained throughout England. Even in Coventry where the gas works was hit four times during the great bombing of this city, gas service was kept up. In some cases service was restored by laying pipes on top of the ground a short time after the all-clear signal was sounded.

Bombs Pierce Holders

"Although bombs have pierced many gas holders in England, this has not caused explosions," Mr. DeBard said. "It does result in loss of gas, however, but these holders are repaired quickly and put back in operation. In London the gas companies have pooled their repair gangs and stocks of supplies and work from a central office for information. Very few gas plants in England have been put out of commission and the damage done by bombs has been repaired quickly."

Other highlights of Mr. DeBard's address:

When the war started distribution systems were interconnected with other



Interesting map showing percentage increase or decrease in the total population of each county in England and Wales since the war began

gas companies wherever feasible. Spare parts were purchased and placed in bomb proof shelters. The entire system, including the plant, had many



R. E. Wertz, Amarillo, and H. C. Cooper, Pittsburgh. Mr. Cooper is chairman of the Main Technical and Research Committee



Elmer F. Schmidt, Dallas, and E. L. Rawlins, Shreveport, who presented progress reports on the work of the Main Technical and Research Committee



Herman Russell, Rochester; Frank H. Payne, Erie; Marcy L. Sperry, Washington;
Thomas R. Weymouth, New York

hundreds of additional valves installed so that small sections could be isolated quickly and easily. Retaining walls were erected around vulnerable spots and asbestos suits were placed where they could be used quickly.

Water-sealed holders are the types which have stood up best. Other types have been abandoned for the duration of the war. Many companies have strengthened their communication systems by using two-way radio and additional emergency phone service. Employees are used in shifts during the night for fire spotting.

There has been a tremendous shift in population. In London, a city of some 9,000,000, more than 27% of the total population has moved to other parts of England. Some people have been evacuated for military reasons in the East Coast area but principally workers have moved to obtain employment in factories in the west and interior.

Rates Increased in England

Due to the increased cost in operation, the majority of the gas companies have increased their rates, mostly on a percentage basis. For a long time in England the Commission has permitted an increase or decrease of rates based on a fixed percentage of earning. (Washington Plan so-called here in U. S. A.)

There have been no restrictions placed on the use of gas or electricity.

Damage to plant and distribution systems by air raids is paid for out of a special insurance fund, 50% by the Government and 50% by a mutual insurance fund contributed to by all gas

companies. The damage to workers' homes is taken care of through a similar insurance scheme which permits quick relief to those in the lower income class. Every worker and every company employing workers must have an air raid shelter.

Natural Gas in Defense

A highlight of the natural gas program was the panel discussion of regional problems presented to gas utilities in the defense program. The lead-off speaker A. F. Bridge, vice-president, Southern Counties Gas Company, Los Angeles, and vice-president-elect of the American Gas Association, stated that tremendous problems face the gas utilities on the Pacific Coast as a result of the defense boom in that region.

"In Los Angeles county one-half the persons employed in manufacturing are working directly or indirectly on defense production," Mr. Bridge said. "Expansion of employment has been increasing at a rate exceeding 10,000 persons per month. The backlog of orders for nine major coast aircraft industries is now in the neighborhood of 3 billion dollars. The construction of cantonments, air schools and fields and military bases, plus the vast expansion of industry and the influx of workers has created boom conditions in Southern California.

"Since gas is used in this area as a universal fuel for homes, businesses and factories, these conditions create tremendous problems for the managements of gas companies. An example of the increase in load directly attributable to the defense program is the metal products industry, which repre-

sents about 10% of the industrial load of the Pacific Lighting Companies which serve gas in Southern California. There has been an increase of 62% in this load during the first six months of 1941 over a similar period in 1939.

"The accelerated population growth and increase in business also has had a marked effect upon the domestic and commercial load. The Pacific Gas and Electric system has experienced an increase of 7.8% in July and August this year, compared with the corresponding period of 1940. This sharp rise has brought with it a great many pressing problems of gas supply, engineering, material, personnel, wages and rates.



T. B. Gregory, Pittsburgh, and D. A. Hulcy, Dallas

We have had to revise our construction program for 1941 due to the priorities situation. Fortunately, our personnel situation has not yet been seriously affected, but in anticipation of the loss of welders as the shipbuilding industry expands we have already established our own school for welders. The Pacific Lighting companies have already made three general wage increases during the last year for all employees below the \$300 a month level."

Southwestern Conditions

Virtually similar conditions in many respects as those prevailing on the Pacific Coast were reported by D. A. Hulcy, president of the Lone Star Gas Company, Dallas, Texas, who represented the Southwest in the panel discussion. Stating that the climate had much to do with the concentration of defense activities in that area, Mr. Hulcy said that training camps, aircraft factories, chemical plants and other defense industries have placed a difficult load on the pipe lines of Texas com-

panies. As an indication of the extent of this load, Mr. Hulcy said that defense activities now under construction will compel the Lone Star Gas Company to spend more than one million dollars in transmission pipe lines alone. For the 12 months ending in August, 1941, the company's gas load was up seven and a half billion cubic feet.

Middle West Activities

B. R. Bay, president of the Northern Natural Gas Co., Omaha, Nebraska, newly-elected vice-chairman of the Natural Gas Section, said that the force of defense spending is being felt in the Middle West with the construction of cantonments, aircraft plants, ordnance works and factories for the manufacture of such products as smokeless powder, TNT, shell detonators, picric acid, anhydrous ammonia, and ammonium nitrate. He pointed out that improved business conditions in the Middle West in 1939 and 1940 had permitted gas utilities to spend substantial sums in plant expansion in order to keep pace with load growth.

Mr. Bay estimated that natural gas



Frank H. Adams, Toledo, and Louis Ruttenburg, Evansville

requirements of defense industry plants and camps in the seventh zone at individual locations vary from one hundred and twenty million to three billion cubic feet annually and the total for all of these government projects exceeds ten billion cubic feet. He warned the gas industry to avoid unwise investment in gas distributing facilities in what may become ghost towns following the defense boom.

In summing up Mr. Bay said that while increased construction activity, additional government projects and home building, plus new and enlarged outlets for gas in private industry and

government projects and increased purchasing power, were favorable factors they were offset by rising prices of materials, increased operating costs, increased taxes, the dislocations of some types of industries, increased living costs, difficulties in securing materials and operating supplies, curbs on installment buying and shortage of many lines of merchandise. "The opposing factors more than outweigh the favorable ones," Mr. Bay pointed out, urging the gas industry to "buckle down and work a little harder," and adopt as its slogan: "Keep the Gas Flowing."

Appalachian Area

D. P. Hartson, operating manager, Equitable Gas Co., Pittsburgh, Pa., and chairman, Technical Section, in discussing the problems of the Appalachian area, pointed out that natural gas fields in that section were now producing only about one half of their previous peak in 1917 and, consequently, the gas companies there faced the problem of supply as well as other factors. "To operators in the Appalachian Field, the tremendous increase in demand which we are now experiencing means a greatly accelerated search for new gas production in old fields," he said.

For the first six months of 1941, total gas sales in the Appalachian region were up 30% as compared with the corresponding period of 1940. "Practically all of this increase has been due to the defense program," Mr. Hartson declared. "Also a very considerable part of the amount of industrial sales of gas has been transferred from regular products to defense products. Plants formerly working only one shift a day are now on a 24-hour, 7-day week basis."

Contrary to the general belief that the Pittsburgh district and other centers of the Appalachian area, are primarily the source of steel products, Mr. Hartson pointed out that the Pittsburgh area has a large section of the non-ferrous metals industry—brass, copper and aluminum—and also is a center of glass manufacture. Defense products being made in this area include not only a host of steel products such as pipe, shells, fabricated steel for construction, guns, etc. but such products as optical glass for navy and air use, porcelain ware for army camps, pro-

pellers for airplanes, gas masks, and numerous other items. The demand for these goods has been stepped up enormously, Mr. Hartson reported.

Many of the products for national defense use metals which require exact heat treating and natural gas has replaced other fuels not as susceptible to accurate control, he said. "Gas has become a premium fuel, and this fact bids fair to be an encouraging one after the preparedness emergency is over," Mr. Hartson predicted.

Referring to the considerable spurt in gas well drilling to meet the increased demand, Mr. Hartson said that the problem of obtaining necessary materials, such as pipe and casing, was likely to become more acute. "We apparently have all the troubles incident to the obtaining of materials for well drilling, pipe lines, and compressor stations that are being experienced elsewhere in spite of the fact that some of these materials may be made 'next door,'" he said.

Taking the month of August as a criterion, Mr. Hartson stated that the average daily sales of gas for industrial purposes of four large natural gas companies in the Appalachian region had almost doubled since 1939—amounting to 110,000 M cu.ft. per day then, 140,000 M cu.ft. per day the following year, and 210,000 M cu.ft. per day in August of this year. He also called attention to the fact that Pittsburgh has many gas producer plants and coke oven plants owned and operated by various steel companies.

Great Lakes Regional Problems

In the Great Lakes region, the problem of expanding production capacity to supply mounting requirements of defense industry is practically absent, J. W. Batten, vice-president, Michigan Consolidated Gas Co., Detroit, said. One serious problem in that region is that of plant protection which is being met through a major change in standard practice. "Additional fences, lighting and signal equipment are being used in substantial amount," Mr. Batten said. "Guards, both armed and unarmed have been added to plant personnel."

The comparatively satisfactory situation with respect to production plants in the Great Lakes area unfortunately

does not extend to the natural gas transmission lines supplying some of those areas, Mr. Batten said. Every effort to secure the pipe necessary to supply all of the unsupplied major centers of population in Central Michigan has so far been unavailing with the result that manufactured gas will, in some cases, be called upon to continue to carry the load.

With respect to distribution operations, Mr. Batten reported that to date this department had not encountered undue difficulty, but that there would be major problems to face in the future. "The requirements of the defense program will adversely affect our normal expansion program next year," he said. "From 10 to 12 millions of dollars would normally have been spent in the Great Lakes area for mains, services and meters to meet the requirements of expanding home building and to supply additional industrial requirements. Present indications are that even though housing is materially curtailed due to the operations of priorities in materials, our ability to supply the reduced volume will be greatly hampered and restricted both by the difficulty in getting materials at all and in obtaining them as they are needed but also by hurdles placed in the way of securing the necessary money."

Labor Transfer Problem

Excepting the obvious problems involved in securing materials for capital construction, there is no problem so pressing in the Great Lakes area as that involved in the transfer of both labor and material from civilian to defense needs in the industrial field, Mr. Batten declared. "In our special area approximately 25% of all gas sold is used by industry—80% of which heretofore has been delivered to manufacturers of automobiles or their accessories. The rapid transition is shown in the fact that whereas in January of this year only 43 plants were operating even in part on defense work, and were using but 7% of our industrial gas sales, on Sept. 1, 1941, more than 170 plants were actively engaged in such work using upwards of 25% of our total industrial sales. By early 1942, it is expected that 50% of those sales will be for defense work."

Mr. Batten deplored the plight of the small plant operator, which he said is serious because his equipment is unsuited to the making of items required in the armament program and he can not obtain materials required for his normal products. "It is evident that much gas load will be lost by us in such plants and that we must be alert to find new applications of our fuel."

GAS PROMOTIONAL POLICIES

(Continued from page 383)

cooperation, helpful suggestions, careful planning and, above all, proper orientation of our own policies. To the appliance dealers we are competitors and I hope that we shall continue to be, selling sufficient to be the marginal factor in the market and thus insuring stability. But our competition can be high minded, clean and helpful and the same relationship maintained among dealers themselves.

Industrial Gas Load

Serious study should be given to the relationship of the various uses of our product in order to arrive at a proper evaluation of the possible sales approaches in the future. For example, industrial gas has never merited the full attention of our industry executives from a selling standpoint, largely because it has been looked upon as an increment—even elusive—part of our output. Actually our industry is tied just as tightly today, independence for profits, to its industrial business as it is to its cooking business. When industry profits by the use of industrial gas, labor has better paying jobs and can buy more domestic gas. Then, too, the increment load of today may be the backbone of tomorrow.

The cooking load as the backbone of our domestic business may be overshadowed by air-conditioning, house-heating, water heating or something else which a customer cannot get at the corner drug store. Why shouldn't we have gas outlets all over the house and be able to place the gas refrigerator where it looks best and a myriad of miscellaneous appliances available to set milady's hair, warm the baby's bottle or burn the trash as it accumu-

lates. Our aggressive, smart sister-industry, limited to a few heats, has done a good job of selling its product for a thousand uses while we, with a thousand heats, are talking about the "five big jobs." Heat always has and always will be a vital factor in man's advancement. Let's find more ways to make gas heat more vital.

One more promotional factor and then I am through. Encamped, principally in the southland, are over a half million men. Back home are millions of wives, sweethearts, mothers and sisters wondering what they can do for national defense, eager to seize on anything that might serve to help the boys. They are thinking and studying diets. The Army is talking diets. Diets for strength—diets for health—diets to win the war. New foods—new methods—new materials. In all this may lie a thought for us. The soldiers in our towns can be given a welcome, a bit of assistance, a place to relax and they will always remember and talk about the gas company that did it for them. We can supply menus, do experimental work and teach diets to the girls back home. Perhaps we can even soften the hard-boiled Mess-Sergeant a bit to the delight of the boys. Here is an opportunity to do a piece of promotional work from which benefits might be realized until these boys are great grandfathers.

And so to summarize. Let us shape our promotional policies, not for the immediate future but for the strenuous competitive era of Peace. Let's be ALL OUT for national defense and continually remind the public that we are. Let's plan wisely, coolly but aggressively for the Peace period and prepare to get our full share of the pent-up buying power of the public. To do this, we must poke into every nook and corner of our own closets, ferret out the weak, strengthen the faltering, encourage the strong. Strength must be our objective—aggressiveness our watchword—service our shibboleth. An insatiable desire on the part of every individual, group and element of our great industry to render a real service to the end that our customers be satisfied, society be benefited and our country—the only one of its kind—be a still better place in which to live.

Priority Questions . . . and Interpretations of Maintenance, Repair and Supplies Order P-46

By GEORGE BEAN

American Gas Association, 406 Albee Building, Washington, D. C.

SINCE the publication of my recent article on priorities, the Maintenance, Repair and Supplies Regulation issued by OPM, known as P-46, has been put into operation. Copies of the Regulation with blank acceptance to be signed by an executive officer of the company were mailed by my office to every Association company member. These acceptances have been executed by a large number of members who are now using the Regulation to good advantage. When companies have filed their acceptance they are permitted to use it immediately without any further notice from OPM.

In a great many cases companies have not understood the full significance of the Regulation and have requested me to obtain interpretations for them. The Priorities Division has been very cooperative in answering these inquiries and it is believed that OPM will soon issue a release covering the subject of interpretations. In the meantime it has been suggested that companies using the P-46 order everything needed for the successful operation of their business and everything to maintain their system from one-half inch nipples to a gas holder. This is permitted under the P-46 Regulation.

Special Rating Applications

In placing an order with a supplier, if it is found that an A-10 rating will not secure the materials in time for urgent use, application should be made for a special rating, supported by a statement from the supplier as to what rating he would require in order to ship the material in time for the need. In my opinion OPM will consider us an honest industry, and pending further interpretations of the Regulation we will not be penalized for making honest mistakes. Care should be taken, however, to keep inventories down to the lowest possible working level. When OPM starts checking inventories, which will have to be reported

as soon as the blank forms are made available, if a company is over-stocked on certain items that are not available to other companies which might be in urgent need of same, this company will probably be required to sell some of this overstocked item to a company in urgent need.

Up to the present time there have been no official interpretations of Order P-46 of detailed importance. The first amendment to the Order restricted delivery of goods obtained under the A-10 rating within the limits of the United States, its territories and possessions.

Another permits the producer at his option to use the end of his fiscal year 1940 in setting up inventory control, instead of the December 31, 1940, date in the original Order.

Appliances Not Included

Appliances are not included in Order P-46, but the necessary pipe, flues and fittings to connect appliances, and to replace similar items that require replacements, are permitted. Well-drilling operations, whether or not the producer is a utility under regulation by a State Commission, are permitted to use Order P-46 to drill wells in existing territories, but exploitation in unproven areas is not permitted.

Up to the present time our efforts to extend P-46 to cover repair parts for appliances have been unsuccessful, but we have hopes that within the near future we will be able to attain this objective.

It is expected that within a few days an official compilation of interpretations of this Order will be published by OPM, and many other questions of minor importance that have arisen under this Order will be clarified.

My advice to all is if there is an un-

certainty of any feature of this Regulation, write me and I will obtain the answer. One of the most frequent questions asked me is what is meant by extensions under the P-46 Order. OPM officials tell me that "service area" means the immediate area now being served with gas, and any service connections in this area may be made under P-46. However, OPM has tentatively ruled that a main extension may be considered a "minor capital addition" provided the cost of the material to be used does not exceed \$1500. OPM has ruled that once an extension has been made, another extension to that particular one cannot be made under the P-46 Order. Yet extensions on other parts of the distribution system could be made where the material cost does not exceed the \$1500. Below are a few questions and answers under P-46:

1. Q. Does preference rating Order P-46 impose a priority rating automatically on all utilities mentioned therein, or is acceptance by each utility necessary?
A. Acceptance is necessary.
2. Q. Is priorities Regulation No. 1 (OPM Release No. PM-1022 of August 28, 1941) Sec. 944.14, which reads in part, "Unless specifically authorized, no person shall, . . . knowingly make delivery of any material whatever, and no person shall accept delivery thereof, which will increase the inventory in excess of the amount necessary to meet required deliveries," a restriction on every person in the United States?
A. Yes.
3. Q. Does priorities Regulation No. 2 (O.P.M. release No. PM-1123, of Sept. 10, 1941) Sec. 944.22 (a) which reads, "All preference ratings shall be mandatory and legally enforceable, any provision in the instrument assigning the same to the contrary notwithstanding," mean merely that all suppliers must recognize priority ratings, or does it mean also that all producers must accept ratings assigned to them?
A. It means that priority system is mandatory on every supplier, and no man-

ufacturer may now refuse to accept an order that carries a defense rating.

4. Q. What is the meaning of the word "class" as used in Sec. (f) of the same Order?

A. "Class" refers to the kind of metal, i.e. whether brass, copper, iron, steel etc.

5. Q. How does Sec. (f) of the same Order affect a utility's purchases and sales of appliances?

A. Appliances are not covered by the Order, and it is forbidden to use this rating on an order for appliances. Necessary pipe fittings and flues to connect the appliances may be obtained, however.

6. Q. How far must a utility inquire concerning availability of materials before applying its preference rating as provided in Sec. (e) (1) of the Same Order?

A. Past experience is a good standard, but the producer must be careful that he uses this rating only to obtain materials that are under priority control.

7. Q. Could pipe used by a utility to connect a new customer be classed as "operating supplies" under Preference Rating Order P-46, Sec. (a) (5), although not charged to operating expense accounts, in view of Sec. (a) (6)?

A. Yes, the OPM is not concerned with whether pipe for service connections is charged to operating expense accounts. It has been specifically held that necessary materials for service connections to existing mains may be obtained under this Order.

Importance of Defense Necessity

The importance of emphasizing defense necessity in the preparation of Forms PD-1, as well as in applications for Project Ratings, cannot be too strongly presented. There was one instance where two separate companies on the same day presented through my office Forms PD-1 on the same manufacturer for almost identical quantities of cast-iron pipe. One company attached a beautiful "build-up" of its defense customers, the other company attached nothing. The company with the good "build-up" got an A-3 rating, and the company with the poorly prepared PD-1 got an A-10 rating.

Members should understand that in all cases of emergency they should direct their telegrams to OPM, setting forth the nature of the emergency, giving the name of the supplier, the Purchase Order number if possible, and the nature of the material sought for

the emergency repair. A copy of the telegram with a covering letter should invariably be sent to my office by air mail, as in every case of this kind we have been able to obtain immediate action on the copy of the telegram several days before the original telegram had reached the proper party at OPM.

Applications for Project Ratings

Obviously when a gas utility is about to expand its plant, with the installation of a generator or a compressor with a large amount of auxiliary equipment which a score or more of manu-



The Baltimore Sun

"What part of the bird do you prefer?"

facturers would be called upon to supply, it would be inconvenient and awkward to execute a Form PD-1 on each of these numerous suppliers, risking the delay that prevails in OPM today.

So when a plant extension program or system extension program or any utility program that can be regarded as a project in itself is planned it is possible to obtain a blanket preference rating for the entire program which is known as a Project Rating.

To obtain this rating the applicant prepares a statement which must be acknowledged on oath of an executive officer of the applicant company. The statement is directed to the Priorities Division, Office of Production Management, Washington, D. C., and should contain the following information in sequence:

1. Name and address of the owner of the project.
2. Location of the project—name of the station or plants.
3. A clear short statement of the scope of the project (whether it is a generating unit, an entire plant, a compressor station, etc.).
4. The statement of the functional purpose of the project (whether to create added gas producing facilities, to increase the delivery from existing facilities, to insure continuity of delivery, etc.).
5. A statement with brief supporting data as to the relation of the project to National Defense—quantitative statements rather than generalizations.
6. A statement of the urgency of need for the construction involved including the statement of the expected maximum demand for the next three years, the minimum reserve in capacity required, and the present net assured capacity above reserves.
7. A statement of the availability of standby equipment.
8. A statement as to whether the construction is in addition to an existing plant, whether the plant is already in construction and a statement of new collateral construction necessary to make it effective.
9. Whether work has commenced on the project, or when it will commence and the latest practicable date of introduction of the project into commercial operation.
10. A statement of aggregate dollars cost of project exclusive of labor. A schedule of the various large elements entering into the project. List the expected sources of procurement, and latest practicable delivery date of each and the dollar cost of each, exclusive of labor. The aggregate dollars involved in these items should approximate 80% of the total dollars involved in the project. It is desirable that smaller elements such as switch-board construction, and various structural steel be listed categorically rather than by details.

In addition, OPM has recently prepared a new form which must be submitted with all applications for Project Ratings. The form is a schedule of critical defense materials that will be used in the project, and includes poundage and dollar value. These forms are available at my office.

Support this application with all available evidence which may be attached as exhibits. This material may include maps, letters from important defense customers, letters from industries, and if military or naval establishments are on the list of customers, then letters from the Commandants of these establishments might well be included. The application itself should be prepared in quintuplicate and sent to the

Washington office of the American Gas Association. Please keep in mind that Project Rating applications must be notarized.

General Preference Order M-36

Another OPM order of interest to the gas industry is General Preference Order M-36, which puts Manila Fibre and Manila Cordage under priority control, restricting its sale to all but defense and essential industries. This order as it was originally drawn excluded gas wells, but on the representation of the American Gas Association Section E, Paragraph B, was amended to include gas wells as well as oil wells for drilling cables, bull ropes, cat lines, torpedo lines, and derrick lines.

Gas Production

A number of inquiries have come in as to how P-46 affects gas production. Below I give you a few of the questions that have been submitted to me and the answers that I have obtained from OPM. I find that the drilling of wells is being conducted by three methods—the first:

(A) *Drilling directly and entirely by the gas or pipe line company.* Questions and answers under this heading are as follows:

1. Q. Do we assume correctly that P-46 may be used for repair and maintenance parts for maintaining the drilling equipment?
 - A. Yes.
2. Q. What procedure should be followed to obtain priorities for casing, tubing, and fittings to go in the wells?
 - A. Use PD-1, or apply for project rating.
3. Q. What procedure should be followed to obtain priorities on new drilling equipment such as derricks, rigs, drilling engines, cable, etc.?
 - A. If the equipment is replacement equipment, and is obtainable under this rating, P-46 may be used. If it is capital addition, and the price for material exceeds \$1500, a rating must be obtained under PD-1

(B) *Drilling by an outside party who has contracted to drill wells for the gas company or pipe line company where the completed wells are to be owned by the gas company.*

1. Q. What procedure should be followed in order to obtain priorities on repair and maintenance parts for the contractor's equipment?
 - A. P-46 may be used.
2. Q. The casing, tubing, etc., will be furnished to the drilling contractor by

the gas or pipe line company so that it is assumed that the priority procedure would be the same as for Item 2 under (A) preceding.

- A. The same procedure would be followed as in Item 2 under (A).
3. Q. What procedure should be followed by the contractor to obtain priorities on new drilling equipment to be used for contracts for the gas or pipe line company?
 - A. Form PD-1 would be used and application could be made either in the name of the contractor or of the company.

(C) *Drilling by independent producers who drill and own the wells themselves but who contract the gas output of these wells to gas or pipe line company. These independent producers are not utilities but in the majority of cases are individuals. A considerable portion of our gas is obtained by this method and it is important that the drilling program of these individual producers be facilitated every way possible.*

1. Q. What procedure should be followed to obtain priorities for repair and maintenance parts for maintaining the equipment of these producer's wells.
 - A. Order P-46 is already construed to apply to producers, although they are not a utility. This interpretation is based on the fact that the gas is "produced directly or indirectly for public use." The producer can apply the rating.
2. Q. What procedure should be followed to obtain priorities for casing, tubing, fittings, etc. which will go into the independent producer's wells?
 - A. If it is a producer's obligation to provide this material, he should make application as in 2 under (A), and if it is the company's obligation, then the company should obtain the rating.
3. Q. What procedure should be followed to obtain priorities for new drilling equipment to be used by the independent producer?
 - A. The same answer applies to this question as in the preceding question with proper reference to 3 under (A).

OPM Order P-22 which gives a blanket rating to oil producers has also been held to include gas producers. Yet P-46 is a producer Order and gives much more leeway.

In closing, may I say that the officials in the Priorities Division of OPM have been very cooperative in hundreds of cases handled by my office, and I repeat that if there is any doubt in the minds of any gas executives regarding interpretations or as to what kind of an ap-

plication should be filed to best meet their needs, my office can probably furnish the answer. The address is 406 Albee Building, Washington, D. C., and the telephone number is District 7697.

Executives Get New Posts in Utility System



H. K. Wrench

ON September 29 the Board of Directors of American Gas and Power Company, a holding company, elected Vera B. Seymour, widow of F. W. Seymour, as a director and as president of the company.

The subsidiary operating properties of American Gas and Power Company are managed by Public Utilities Management Corp., New York City. Marshall S. Reeve, heretofore a vice-president, was elected president of the management company, succeeding the late F. W. Seymour.

H. K. Wrench, formerly vice-president and general manager of Minneapolis Gas Light Company, the principal subsidiary of American Gas and Power Company, was elected president and general manager of the Minneapolis company to succeed the late Mr. Seymour.

Mr. Wrench will retain his position as general manager of the Minneapolis company. He has had long experience in the operation of public utility companies, starting as general manager of the Marshall, Michigan Gas Light Company in 1922 and later operating companies in several other states. He was named vice-president and general manager of the Minneapolis Gas Light Company in August, 1937, and in the same year was named a director of the American Gas and Power Company.

Gild Elects Officers

THE Gild of Ancient Suppliers of Gas Appliances, Skills, Gins, Accessories and Substances, that honorable organization of 10-year veterans in the gas business, held its fifth annual feast in Atlantic City, N. J., during the annual meeting of the American Gas Association.

Major Alexander Forward, managing director, American Gas Association, was appointed an honorary member and the following new officers were chosen: Mayor—C. Edwin Bartlett; Senior Warden—Joe A. Mulcare; Clerk—A. E. Lindquist; Keeper-of-the-Treasure—Glenn H. Niles; Aldermen—Frank C. Parker, Joseph A. Messenger, and E. Carl Sorby.

William S. Guiteau, retiring Mayor, was presented with a beautiful seal ring in appreciation of his four-year term in office.

Robert H. Lewis Wins Association's Prize Paper Contest



Robert H. Lewis

Association on the subject "How I Would Increase the Public Acceptance of Gas as the Ideal Domestic Fuel." Second prize



T. B. J. Merkt

vice-president and general manager of the Kansas City Gas Co., Kansas City, Mo., and president of the Association, at the general dinner held Tuesday evening, October 21, at the Hotel Traymore, Atlantic City, N. J., during the Association's Annual Meeting.

When the contest closed on May 1, 1941,

ROBERT H. LEWIS, field representative in the promotional department of the Washington Gas Light Company, Washington, D. C., was awarded first prize of \$150.00 in the prize paper contest conducted by the Committee on Personnel Practices of the American Gas Association on the subject "How I Would Increase the Public Acceptance of Gas as the Ideal Domestic Fuel." Second prize of \$75.00 was won by Theodore B. J. Merkt, manager of the Flatbush branch of The Brooklyn Union Gas Company, Brooklyn, N. Y. Charles W. Kimball of the Hartford Gas Company, Hartford, Conn., received honorable mention.

Presentation of the awards was made by T. J. Strickler,

entries of 550 gas company employees had been received. They came from all parts of the country and were written by all kinds of employees. In addition to the national prizes, many companies offered prizes for the best papers submitted by their own employees.

In commenting on the contest Mr. Strickler said:

Weymouth Receives Charles A. Munroe Award for Outstanding Achievements

HIGHEST honor within the gift of the American Gas Association has been conferred on Thomas R. Weymouth who retired on April 1 as vice-president of the Columbia Gas & Electric Corporation, New York, after a distinguished career in the natural gas industry. Mr. Weymouth received the Charles A. Munroe Award at the Association's annual meeting in Atlantic City, N. J., for having made the most outstanding recent contribution toward the advancement of the gas industry.

Consisting of a substantial financial acknowledgement and engrossed certificate, the award was made to Mr. Wey-



T. R. Weymouth

"The papers as a whole were of exceptionally high calibre and evidenced a thorough knowledge of the gas industry and its problems. A series of papers based on the contents of the essays submitted in this contest would be informative to everybody and I believe of real constructive value to the industry."

Mr. Strickler and George S. Hawley, president, The Bridgeport Gas Light Co., Bridgeport, Conn., and incoming Association president, acted as judges in the contest.

mouth for his leadership of organized research activities and for his individual accomplishments of a fundamental and permanent nature. Among the many achievements over a period of years which led to the selection of Mr. Weymouth for this high honor are the following:

He experimented extensively in the operation of gas compressors and engines and developed formulas for computing the actual gas delivery capacity and power requirements of compressors. He invented a special type of gas cooler for increased efficiency and collection of condensates.

Mr. Weymouth collaborated in the first practical determination of the deviation of natural gas from Boyle's Law and conducted independent research on this subject, developing an approximate simplified method of securing the result. He also developed new instruments for determining the specific gravity of natural gas and collaborated with the National Bureau of Standards in a study of the efficiency and accuracy of the devices then available.

He conducted independent research on the extraction of gasoline from natural gas and collaborated in the development of the charcoal process. He collaborated in the development of the Oliphant Pitot Tube and developed the so-called Weymouth Formula for the flow of gas in pipe lines.

Mr. Weymouth invented one type of orifice meter and established the coefficients which formed the basis of measurement by the Foxboro meter for gas and other fluids until the revision made by the Gas Measurement Committee of the American Gas Association in 1935. He was chairman of the latter committee from its origin to date. Mr. Weymouth also has done research work on the underground storage of natural gas; in fact worked on some of the earliest experiments.

Mr. Weymouth was a member of the Natural Gas Association of America

CONVENTION CALENDAR

NOVEMBER

Nov. 13-14 Mid-Southeastern Gas Association
Sir Walter Raleigh Hotel,
Raleigh, N. C.

DECEMBER

Dec. 1-2 National Industrial Council
Waldorf Astoria Hotel,
New York, N. Y.

1-5 American Society of Mechanical Engineers
New York, N. Y.

1942

FEBRUARY

Feb. 9-11 Southern Gas Association
and A. G. A. Southern-Southwestern Gas Sales Conference
Biltmore Hotel, Atlanta, Ga.

MARCH

Mar. 2 American Society of Testing Materials
Cleveland, Ohio.
19-20 New England Gas Association
Boston, Mass.

APRIL

Apr. 13-15 Mid-West Gas Association
Sioux City, Ia.
19-21 Gas Meters Association of Florida-Georgia
Savannah, Ga.
27-30 U. S. Chamber of Commerce
Washington, D. C.

since 1911, and, since its merger, has been a member of the American Gas Association, serving as chairman of the Natural Gas Section in 1938-1939. As a member of the Main Technical and Research Committee and chairman of the gas measurement group, he has provided invaluable leadership in the Association's research program.

The Charles A. Munroe Award Committee consisted of C. L. Campbell, Chairman, F. H. Lerch, Jr., and D. A. Hulcy.

11 Units Win Million Man-Hour Awards

REPRESENTATIVES of 11 units of gas companies throughout the country received Merit Awards on October 21 from the American Gas Association for achievements in accumulating one million or more man-hours without a disabling injury accident. The awards, which were recommended by the Accident Prevention Committee and approved by the Executive Board, were presented by President T. J. Strickler at the general dinner in the Hotel Traymore during the Association's annual meeting in Atlantic City.

The following companies received this outstanding recognition for their safe operation records:

The Northwestern Ohio Natural Gas Company, Toledo Division, Columbus, Ohio.

The Ohio Fuel Gas Company, Distribution Department, District No. 5, Mansfield, Ohio.

The East Ohio Gas Company, Safety District No. 8, Youngstown, Warren & Niles Divisions, Cleveland, Ohio.

The United Gas Pipe Line Company and Union Producing Company, Monroe District, Shreveport, La.

The Equitable Gas Company, Meter Shop Division, Pittsburgh, Pa.

The Lone Star Gas Company, Petrolia Compressor Station, Dallas, Texas.

The Consolidated Gas Electric Light & Power Company of Baltimore, Entire Gas Division, Baltimore, Md.

The Gulf States Utilities Company, Baton Rouge, La.

The Ohio Fuel Gas Company, Southern Compressor Division, Columbus, Ohio.

The Brooklyn Union Gas Company, Greenpoint Works, Brooklyn, N. Y.

The Ohio Fuel Gas Company, District of Fremont, Ohio.

A. W. Jones, of Standard Gas, Joins O.P.M.

ARTHUR W. JONES, sales promotion manager of Standard Gas Equipment Corporation, has been called to Washington to work with the Office of Production Management.

Mr. Jones has been appointed chief statistician of the Shoe and Leather Products section of O.P.M.

Earl W. Hodges Is Dead

EARL W. HODGES, for many years an executive in charge of public relations of the Cities Service organization and past president of the Lions International, died suddenly October 15 at his home in New York. He was 59 years old.

Mr. Hodges was born in Newark, Arkansas, where he graduated from high school, Commercial College and attended Arkansas Law School. After engaging in country newspaper work and reporting for St. Louis dailies, Mr. Hodges was appointed secretary of the Arkansas Press Association. He later served as State printing clerk, deputy State auditor and in 1910 was elected secretary of the State of Arkansas, a position he held until 1917.

Following this he was director in charge

of the Jewish Foreign Relief Fund for all states west of the Mississippi River; member of the Arkansas State Capitol Commission and Arkansas Penitentiary Commission; sub-chairman, Mississippi Waterways Commission; member of the Exemption Board No. 2 in Little Rock during the last war; engaged in Liberty Loan work in 22 states; director of Arkansas Utilities Bureau for three years; associate arbiter of Kansas, Oklahoma, Arkansas coal settlement in 1920. Shortly after this he became an executive of the Cities Service organization in charge of public relations.

Mr. Hodges was a past president of the Lions International and was a member of numerous gas and electric association committees.

McCall's Magazine Awards Made to Home Service Directors



Albertine Berry

THREE directors of home service departments of gas utility companies were honored at the annual meeting of the American Gas Association in Atlantic City when they received the first annual McCall's Magazine Awards for making the most outstanding contribution to the advancement of better

living in the home through the promotion of domestic gas appliances and equipment.

First prize of \$100 and an engraved plaque went to Albertine Berry, home service director, Lone Star Gas Company, Dallas, Texas. Second prize of \$50 and a framed illuminated parchment was awarded to Mildred R. Clark, home service supervisor, Oklahoma Natural Gas Company, Tulsa, Okla., and third prize of \$25 and a framed illuminated parchment was won by Florence Matheny, home service director of the Southern Counties Gas Company at Monrovia, California. The presentations were made at the General Dinner held at the Hotel Traymore.

The contest was open to all home service departments in this country and Canada. Contestants were re-

quired to submit papers of 2000 words or less covering the work of their home service departments, divided as follows: aim of department, training of personnel, community activities, increase in scope of activities, and accomplishment of aim.

The Jury of Awards consisted of F. M. Rosenkrans, new business manager, The Gas Service Co., Kansas City, Mo., chairman; W. E. Bolte, new business manager, The Brooklyn Union Gas Co., Brooklyn, N. Y.; B. T. Franck, vice-president, Milwaukee Gas Light Co., Milwaukee, Wis.; J. C. Sackman, general sales manager, Northern Indiana Public Service Co., Hammond, Ind.; and R. E. Williams, new business manager, Binghamton Gas Works, Binghamton, N. Y.

It is noteworthy that Miss Berry won this national new recognition at the end of her term as chairman of the Home Service Committee of the American Gas Association.



Mildred R. Clark



Engraved plaque presented to winner of McCall's award



Florence Matheny



Accounting SECTION

LYMAN L. DYER, *Chairman*
L. A. MAYO, *Vice-Chairman*
O. W. BREWER, *Secretary*

Accounting Section Program "Packs a Wallop"



Lyman L. Dyer, of Dallas, incoming chairman of the Accounting Section, and E. N. Keller, of Philadelphia, retiring chairman

THE Accounting Section kept its promise. It stated in its announcement and cartoon last month that the meetings at Atlantic City would "pack a wallop";—and they did. A program of information and discussion that applied to the accountants' problems of today was presented at all sessions.

On Monday morning, October 20, a business meeting of the entire Section was held. Chairman E. N. Keller, superintendent of customer accounts, Philadelphia Electric Co., presided and submitted his report of the Section's activities during the past year. These have been numerous and important and now become an integrated element in the history of the Association. A convention in October 1940, and A. G. A.-E. E. I. Conference in Detroit, and an A. G. A.-E. E. I. Conference in Cincinnati were the big events of the year. Mr. Keller thanked his committees and expressed the hope that succeeding committees would be as helpful during the next administrative year.

The chairman then informed the audience that Herbert A. Ehrmann, a former Chairman of the Accounting Section, had died very recently. This was sad news as Herb Ehrmann has many friends in the Section. A Resolution Committee had been

*Chairman, Accounting Section Editorial Committee, American Gas Association.

By WALLACE G. MURFIT*

The Philadelphia Gas Works Co.

appointed and it submitted a formal resolution which recited the loss that the Section suffers and expressed to the family the sorrow that the members feel.

The Nominating Committee, F. B. Flahive, chairman, presented its report. Lyman L. Dyer, of the Lone Star Gas Company, Dallas, Texas, was nominated for chairman and Leo A. Mayo of The Connecticut Light & Power Company, Hartford, Conn., as vice-chairman. There being no other nominees, on motion they were elected. Each was called upon and gave an appropriate speech of acceptance.

H. C. Hasbrouck, chairman of the Depreciation Accounting Committee reported briefly on the activities of his committee during the year and Lyman L. Dyer reported on the activities of the Natural Gas Uniform Classification of Accounts Committee. Then George W. Fuchs, chairman of the Luncheon Conference Committee, described the luncheon conferences to be held the next day.

The Managing Committee of the Accounting Section met at lunch on Monday, October 20, with Mr. Dyer presiding. He announced that there would be no December Conference but that a Spring Confer-

ence would be held jointly with the E. E. I. A committee on Time and Place will be appointed to make preliminary plans. Chairmen of A. G. A. committees are urged to contact chairmen of corresponding committees of the E. E. I. for the purpose of arranging mutually interesting programs for this joint meeting. Members generally are expected to submit to the chairmen of the A. G. A. committees any problems they would like to have discussed at that joint conference.

Mr. Dyer distributed a chart of the Section's organization, showing committees and members of each. Two new committees have been established; one is Materials and Supplies; the other is Statistics, which will operate as a subcommittee of the General Accounting Committee. The Classification of Accounts Committee is abandoned as the Federal Power Commission Rules will be adopted and if any interpretation of them is required, it can be handled by a subcommittee of the General Accounting Committee.

Members were asked to submit to O. W. Brewer at Association Headquarters names of Association members who would be useful on the Materials & Supplies Committee and on the Statistics Committee.

A motion was passed thanking George W. Bean, Washington representative of the American Gas Association, for his help in aiding members to procure materials.

LUNCHEON CONFERENCES

There were seven luncheons held and their success was undebatable. George Fuchs and his committee, and the chairmen and the discussion leaders of the individual luncheons, are to be congratulated. The luncheon plan of meeting promotes an atmosphere of frankness where procedures are explained, results are analyzed, inquiries and suggestions flow naturally,—in short where operating help can be obtained briefly and of the most practical kind. No records are kept but in the stories recited below are reported the major subjects that were discussed.

No. 1. Customer Accounting Luncheon No. 2. Collections Luncheon

Herbert E. Cliff acted as Chairman.

Because of the interest expressed by members of the Customer Accounting Committee, and Credits and Collection Committee in "Consumer Credit Regulation W" as a

subject for discussion, it was determined to combine the luncheon conference of these two committees. Accordingly, arrangements were made to have Mr. Williams of the Federal Reserve Bank in Philadelphia, and Mr. Allen of the Federal Reserve Bank in New York, attend the combined meeting for the purpose of explaining and interpreting the regulations and answering any questions propounded by the group.

Mr. Williams of the Federal Reserve Bank, Philadelphia, in his preliminary remarks, gave a most excellent explanation of the reasons and philosophy behind "Regulations W," and the hopes and aims for it when the present emergency ends.

Mr. Allen gave a general interpretation of some of the important questions he knew were somewhat puzzling to the group, and then questions were requested from the floor.

Much enthusiasm was evinced by delegates present, and the two Federal Reserve representatives not only gave enlightening responses, but also were most gracious in their handling of all questions. They were roundly applauded at the closing period.

No. 3. Customer Relations Luncheon

Harry Jeffs, Chairman

In discussing this subject it was agreed that customer attitude and reactions determine company policies to a greater extent than does company management. Rules, arbitrarily devised by top supervisors are subjected to progressive modification as they pass through successive layers of authority not because of insubordination but rather because of upward pressure of customer acceptance. In this manner new rules and policies are born.

The group believed that the new terms for merchandise have been recognized by the public as an essential element in the national defense program, and not a matter of utilities own creation. Only a few companies represented had made any recent changes in the extent to which they render free service, and these changes were minor in frequency of application.

Realizing the effect of courteous and effi-

cient telephone service on customer reactions, it was conceded that the best results could be obtained only through careful training and frequent monitoring. Ways and means for doing this were discussed. This feature of service, as well as the use of counters or desks for contact work, was explored thoroughly, as was also the development of two-way radio equipment on company trucks.

No. 4. General Accounting Luncheon

O. H. Ritenour, Chairman.

First there were discussed the Federal Power Commission staff reports on Original Cost. The remainder of the time was devoted to a discussion of O.P.M. Preference Rating Order P-46. Fortunately, several members of the committee which was appointed by A. G. A. to cooperate with representatives of O.P.M. on the preparation of forms to be used in reporting in accordance with Section



Lyman L. Dyer, Dallas, and Leo A. Mayo, Hartford, newly elected chairman and vice-chairman of the Section respectively

G of Order P-46, were present. There was available an advance copy of the proposed forms. As a result, the dis-

(Continued on page 414)

Past Accounting Section Chairman Dies



H. A. Ehrmann

HERBERT A. EHLMANN, past chairman of the Accounting Section of the American Gas Association and an executive in the tax department of the Consolidated Edison Co. of New York, Inc., died October 16 after an illness of several weeks.

Mr. Ehrmann had made many outstanding contributions to the gas industry's progress and his many years of service in Accounting Section affairs reached a fitting climax in 1938-1939 when he served as chairman. His administration was among the most active and constructive in the Section's history. His co-workers in the Association were shocked at his loss and

passed the following memorial at the Annual Meeting in Atlantic City, N. J., October 20:

"The Accounting Section of the American Gas Association records with deep regret the untimely death on October 16, 1941, of HERBERT A. EHLMANN, for many years active in the affairs of the Section.

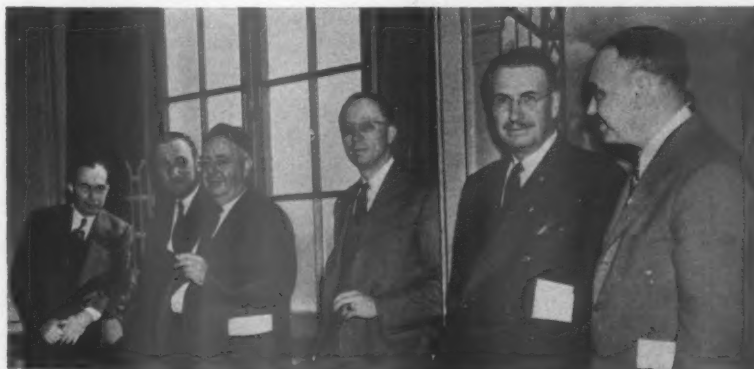
"Born in Chicago, educated in that City's public schools and at Northwestern University School of Commerce, Mr. Ehrmann entered the public utility field in 1907 with The Peoples Gas Light & Coke Company as a junior clerk and moved consistently upward, later becoming treasurer of the Midland United Company and the Midland Utilities Company. He was also treasurer of the West Ohio Gas Company and of the Chicago, South Shore and South Bend Railroad.

"In 1934 Mr. Ehrmann became assistant to the secretary of the Consolidated Gas Company, now the Consolidated Edison Company of New York, Inc., and in 1937 was placed in charge of social security taxes in the Tax Department of the Company.

"Mr. Ehrmann first became active in Association work in 1921, and gave unstintingly of his time to committee activities and devoted much effort to the advancement of public utility accounting. In 1939 he served as Chairman of the Accounting Section.

"He had many excellent qualities which endeared him to a host of friends and associates. The Association at large and the members of this Section in particular will feel his loss keenly. His value to the industry and his personal charm as a friend will be missed by all.

"It is ordered that a copy of this memorial be sent to Mr. Ehrmann's family as an expression of our deep sympathy."



A group of delegates waiting for the accounting session to open in Atlantic City



Residential SECTION

E. J. BOYER, *Chairman*
B. A. SEIPLE, *Vice-Chairman*
J. W. WEST, JR., *Secretary*

Gas Company Sales Policies During the Emergency Take Precedence at Residential Meetings

A LONG step forward in the important process of establishing unified national sales advertising and promotional policies during the emergency was taken by the gas industry at the Residential Section meetings in Atlantic City, N. J., October 20-22, when authoritative experts took part in a give-and-take session devoted exclusively to these pressing problems. High point of the two meetings sponsored by the Section was a clinic during which a group of seven men from various sections of the United States and Canada were interrogated by R. J. Rutherford, chairman of the Section, and vice-president of the Worcester Gas Light Co., in respect to the sales policies and plans of their companies.

Chairman Rutherford opened the Monday morning meeting with a brief summary of the work of the Section during the year and a message of thanks to the committee personnel who had accomplished their tasks. He stated that the Association's program had been directed toward five logical objectives: (1) knowledge of potential markets, (2) utilization equipment development, (3) adequate and saleable rates, (4)

aggressive, stimulating and sound merchandising plans, and (5) proper and complete training of sales and service organization. A real job had been done in the pursuit of these objectives, he said.

Turning to current problems Mr. Rutherford said: "Few of us thought five years ago that today we would be picking and choosing business to be taken." He warned his audience to choose wisely and with an eye to the post war period. "Five years from now let's not look back and say—'Why didn't we do so and so in 1941 and 1942?'"

Following the chairman's remarks, E. J. Boyer, sales manager of the Minneapolis Gas Light Co., Minneapolis, Minn., was elected chairman of the Residential Section. B. A. Seiple, vice-president in charge of sales of the Jersey Central Power & Light Co., Asbury Park, N. J., was named vice-chairman.

Paige Urges Continued Selling

Clifford E. Paige, president, The Brooklyn Union Gas Company, Brooklyn, N. Y., had prepared the opening address in the sales clinic on "Planning Residential Sales for Today's Emergency and Tomorrow's Opportunities," in which he presented his experience during the last World War and the path his company has charted for the duration and following this emergency. It was presented by Richard B. Loomis, secretary of the Brooklyn company.

Referring to his experience in World War I during which his company eliminated its New Business activity, Mr. Paige noted that "it proved a sorry make-shift because, while the immediate showing was

impressive, it took years to restore our losses." On the other hand, he stated, "today we are doing everything we can to sustain our sales momentum. We do not intend to disband our Sales Department nor to lose the high spirit and enthusiasm of its people. The way our Sales Department has been organized and operated during the past few years is proving its worth in the present emergency. This time we won't lose momentum." Mr. Paige's paper will be printed in full in the next issue of the MONTHLY.

Appliance Manufacturer's Viewpoint

In presenting the appliance manufacturer's viewpoint, H. T. Ryan, vice-president, Robertshaw Thermostat Co., Youngwood, Pa., and member, A.G.A.E.M. Defense Committee, pointed out that the manufacturers face somewhat dissimilar problems. "For example," he said, "many accessory manufacturers such as the company I represent have equipment and man power which can be more readily converted to defense requirements than other manufacturers such as those making appliances, ranges, water heaters, house heaters and refrigerators. And yet this is not an unmixed blessing because it presents the possibility that a forcible change which would not only seriously affect our own company but would have immediate repercussions on many companies throughout the country using our accessories."

"It would be the height of shortsightedness for any manufacturer needlessly and of his own volition to do anything to weaken his company or industry because of the will-o-the-wisp of presumed war profits,"



Residential Section Chairman R. J. Rutherford (center) talking over the program with incoming officers, Chairman-elect E. J. Boyer, and Vice-chairman-elect B. A. Seiple

The popular sales promotional clinic in action with Chairman Rutherford posing a question to the experts at the table. Left to right: Louis Ruthenburg, A. J. Strain, D. A. Hulcy, Robert A. Hornby, F. M. Rosenkrans, J. P. Leinroth, and N. B. Bertollette





Left—Luncheon meeting in honor of the national leaders of the CP Ranger Club

he declared. "While very likely there will be some individuals or organizations who make a profit out of this world-wide agony, I am sure they will be few and far between and all of us will find that the burden will be heavy.

"But in the period which will follow there will be opportunities far greater than we have experienced, and those organizations which have been wise enough and fortunate enough to maintain their identity during this period will find a job to perform in which the rewards should be great," he concluded.

Sales Clinic Is Hit

There followed an effective and dramatic presentation of information on a wide variety of sales and promotional problems. Through the medium of a panel of seven gas industry executives arrayed behind a table in a manner similar to the famous "Information Please" radio program, this feature was carried out so smoothly and spontaneously that it proved to be the most popular event of the entire meeting.

With Chairman Rutherford acting as questioner, the following men answered questions which had been submitted by 50 gas companies: N. B. Bertolette, president, The Hartford Gas Co., Hartford, Conn.; J. P. Leinroth, general industrial fuel representative, Public Service Electric and Gas Co., Newark, N. J.; F. M. Rosenkrans, new business manager, The Gas Service Company, Kansas City, Mo.; Robert A. Hornby, vice-president, Pacific Lighting Corp., San Francisco, Calif.; D. A. Hulcv, president, Lone Star Gas Co., Dallas, Texas; A. J. Strain, superintendent of domestic sales, The Consumers Gas Co. of Toronto; Louis Ruthenburg, president, Servel, Inc., Evansville, Indiana.

Some of the questions and replies were as follows:

Did your company quit appliance sales during the last war? Most of the companies did not stop their promotional activities but some of them curtailed their programs to some extent, with the result that it was more difficult to gain momentum in the post-war period.

Assuming that appliance production is curtailed 50% what markets do you plan to attack? Defense housing projects would, of necessity, come first; replacements thereafter, and new private homes next.

Is your company planning to maintain its sales personnel? Sales personnel should be

kept intact wherever possible. In regard to home service work, there should be no elimination of workers in this field because of its vital function in the nutrition program and because of the desirability of helping housewives to economize by using their present equipment better. Home service offers a fine opportunity to be of service during the emergency.

How will you utilize the time of your salesmen? It was conceded that it was not practical to have salesmen doing survey work for two reasons: they are not trained for it, and due to shifts in population after the emergency period, the surveys would be of little value. Public relations calls were frowned upon and so were service calls to handle minor adjustments of appliances. It was indicated that a better type of salesmanship would now be required to sell the restricted output of appliances because of more difficult credit terms. Intensified training of salesmen should be carried on year in and year out regardless of the emergency.

What will your company do to keep the dealers' interest in the sale of gas appliances if they become scarce? Every effort should be made to maintain the dealer set-up and where curtailment is necessary dealers should be given supplemental activities if possible. Curtailed supplies should be prorated so that no dealer will be left completely out of the picture.

What about appliance financing? The idea prevailed that there might be further restrictions in installment selling as the emergency deepens. It was thought that appliance terms could be used as a selective selling force.

Do you believe special appliance requirements above those required by A. G. A. should be waived during the emergency? It was the consensus of the group that those

Below—Six of the seven gas range salesmen who won national honors in the CP range campaign. Left to right: W. M. Ellis, Los Angeles; W. F. Rountree, Mobile; Miss E. Kraus, Gary; W. J. Collins, Buffalo; G. G. Fowle, Pittsburg, Kans.; B. M. Smilie, Aniston. Seventh was R. C. Borne, Minneapolis



not needed for safety reasons should be dropped.

If production of appliances is curtailed should the volume of CP sales be maintained? The volume of CP ranges sold should be maintained as high as possible. Quality ranges should be sold as much as possible in the narrowing market.

What will your company do to get more good out of old appliances that are taken in trade? There should be a reconditioning



Spearheads of the refrigeration campaign. George S. Jones, Jr., C. V. Sorenson, incoming chairman, and B. T. Franck, outgoing chairman, Refrigeration Committee



On the roster during the residential sales program. Left to right: Hall M. Henry, chairman, Market and Economic Research Committee; H. T. Ryan, member, A.G.A.E.M. Defense Committee; and George L. Cullen, chairman, Special Exhibits and Activities Committee

program for turned-in equipment and equipment on the lines should be serviced whenever possible. If necessary, second-hand ranges should be sold to hold gas customers, but only if new products are not available.

Should the A. G. A. complete its plans for CP water heaters and house heating equipment? It should proceed with these plans and have them ready to put into effect when possible.

Will your company maintain its usual advertising budget? While there will be a change in type of advertising, less appliance-selling copy and more institutional, there should be no substantial curtailment. It should be regarded as an asset which has been built up over a long period of time that should not be destroyed. Advertising is sufficiently flexible to render a valuable function during the emergency. The A. G. A. national program should be continued and improved. Mass contact with customers through cooking schools, home shows, demonstrations, etc. will be continued and where possible, expanded.

A sales preview of the Residential Section's 1941-1942 program was the principal feature of the Tuesday afternoon session which was conducted by E. J. Boyer, newly-elected chairman of the Section. This session opened with an address by Harry G. Mook, vice-president of the Plymouth Motor Corp., Detroit, Mich. on "Sales Promotion for the Duration."

High Cost of Not Selling

"There is a bonus coming to the business man who keeps his head today," was Mr. Mook's pithy message. "The man who keeps his feet on the ground, who keeps cool, who thinks conditions through, will more easily meet the day-to-day changes he must face. On the other hand, hysteria, worry, hand wringing and synthetic leadership are likely to be a big handicap," he said.

Referring to the high cost of *not* selling, he said industry has an important stake in its sales personnel. "We have an investment in human beings and we will fight to keep it intact." He said this was no time for any firm to coast or to attempt to ride through the emergency on its reputation and without adequate sales promotion.

Business has services and ideas to offer in addition to the sale of goods, Mr. Mook pointed out. "Today these services and ideas can be used not only to meet present business restrictions, but to build strength for the future; so that when business again returns to normal, business men will be able to go forth with renewed vigor and vitality."

"The best managed organizations," Mr. Mook emphasized, "will come out of today's difficulties stronger than when they went in, particularly those who take special

care to guard the most precious thing any man, store or business can have—the goodwill of its customers and the public it seeks to serve."

A full-fledged program of activities in the residential sales field will be undertaken during the next year, Mr. Boyer said in introducing the men who will lead the various committees of the Section. Those who participated and outlined their programs were the following incoming chairmen: W. M.

(Continued on page 414)

Range Committee Plans To Continue CP Promotion During 1941-'42

THE Domestic Range Committee, composed jointly of gas utility men and Certified Performance range manufacturers, held its first meeting for the new Association year under the Chairmanship of Wallace M. Chamberlain, Grand Rapids, Michigan, at Atlantic City, October 19. There was full attendance of the membership of the committee and, in addition, many state managers of the CP Range Program were present.

In making its plans for the promotion of CP Ranges during 1941-'42, the committee had the support of the gas utility and manufacturing branches of the industry to an unusual extent. First was the resolution of the American Gas Association Executive Conference that "every gas utility, the American Gas Association and the Association of Gas Appliance and Equipment Manufacturers should continue unabated their promotion of Certified Performance range sales, as representing the ultimate in modern cooking equipment." Second, the pledge of the Certified Performance gas range manufacturers that they "are determined to utilize every means and resource at their command to continue CP production in undiminished and satisfying quantity, in so far as consistent with the country's gigantic defense effort."

Each utility member of the committee serves as a regional manager in one of the eight geographical regions of the United States and has appointed a CP promotional manager for each state in his region. Plans are now being made for closer cooperation between state and regional managers during the coming year. One of the features of the 1942 program will be the presentation to the industry of four complete CP range sales campaigns especially designed to meet the local conditions of gas companies in various parts of the United States. These campaigns will be presented by the field representatives of A.G.A.E.M. and it is thought that this material will answer a long felt need by the industry for packaged CP Range promotional programs.

It was unanimously decided that the CP Ranger Club should be continued during the coming year with some simplification in the scheme of membership pin awards and the retention of the cash prizes of \$10 for the sale of 25 CP ranges and \$15 additional for the sale of 25 more ranges during the coming year.

Another bigger and better three months' Spring campaign with cash awards will be held in March, April and May. All expense trips to the next Annual Meeting of the American Gas Association will again be awarded to the utility sales leaders in each of the seven divisions of the competing companies. A National Award and divisional trophies to the utilities which have done the best all-round CP range promotional jobs during the emergency will also be repeated.

The wisdom of the committee in making plans for an unabated promotion of CP range sales during the emergency was further confirmed at the panel discussion of gas company executives, held at the Residential Section meeting on the following day. At that time the executives not only expressed approval of the continuation of the CP range program, but recommended that analogous programs for water heating and house heating equipment should be completed and held in readiness for inauguration at the end of the emergency.



The Domestic Range Committee during its meeting in Atlantic City, October 19. Left to right around the table: L. L. Kahn, J. E. Kern, Malcolm Leach, W. L. Hayes, R. S. Agee, H. S. Minster, John Bogan, B. R. Tritton, S. C. Little, J. P. Hanlan, Lloyd Ginn, W. M. Chamberlain, incoming chairman, George L. Scofield, chairman, F. W. Williams, W. E. Derwent, G. D. Wells, Cy Young, C. F. Henness, W. M. Kramer, Fred A. Kaiser, W. E. Bolte, and W. H. Van Riper

Nutrition for Defense Is Theme of Annual Home Service Breakfast Meeting



Helen Smith

the A. G. A. Annual Meeting in Atlantic City, Tuesday, October 21.

In opening the breakfast meeting, Albertine Berry, chairman, Home Service Committee and home economics director, Lone Star Gas Company, stated that national defense means total defense. As such it has two major parts: first, military preparedness and aid to the democracies; second, and equally essential, the strength of our own people. The home service departments in the gas companies, through their natural set-ups of community contacts and training in home economics, fit particularly well into the picture of "Nutrition for Defense."

Home Service Aids Sales

R. J. Rutherford, vice-president, Worcester Gas Light Company, was introduced as chairman of the Residential Section in which the Home Service Committee functions. He pointed out the cooperation given by the Home Service Committee in cooperating with all sales plans of the Residential Section. To illustrate one phase of this cooperation, he described the type of promotional material developed by the committee since the inception of the CP range promotion, all of which had proved valuable not only to home service but to sales plans of both gas companies and manufacturers.

Alexander Forward, managing director, American Gas Association, stated: "Emergency is one word predominant today, —Home Service in the Emergency, and the incoming committee is working on a project which they call 'Bridging the Emergency—Looking Toward the Future.' These girls think they are prophets, and let's hope they are. They see ways in which they can help with sales of gas and gas equipment by stressing a different form of kitchen planning and greater care and use of equipment; they see that their contacts with public schools will keep future homemakers informed; and they see that work with tenants in government and defense housing projects will provide guides to the choice of gas

equipment and familiarity with gas usage when they move into homes of their own."

Mr. Forward then pointed out that one of the best illustrations of how home economists can fit into the emergency is what is being done in Britain today in the national war effort in the Food Education Campaign. Home service "front line troops" have responded to the national call in adapting their programs to what Lord Woolton, Minister of Foods calls the "kitchen front." Through the "kitchen front" it has been possible to keep the story of gas and gas equipment before the people of Britain. Demonstrations in mobile kitchens equipped with gas; assistance in the gas-equipped British restaurants, which is the better accepted name given to communal feeding centers; the Food Advice Bureaux in gas showrooms where demonstrators advise women on nutrition and food conservation before they go shopping or after they have bought their supplies; and instructions in the Women's Institutes fitted up with gas equipment as communal centers for fruit preservation, the jam making and the fruit bottling of England.

Lessons from Abroad

"Let's hope in this country such stringent methods will not be needed, but home service in our gas companies can learn much from 'over there' in adapting its program to 'Bridging the Emergency—Looking Toward the Future.' For the future is bringing to us changes which are as inevitable as they are significant."

The president of the American Gas Association, T. J. Strickler, vice-president, Kansas City Gas Company, introduced the general theme of "Nutrition in Defense." In the tremendous scope of the nutrition problem which has been set up as a major part of the national defense effort, Major Strickler pointed out that the gas industry, through its sponsorship of home service work has an organization which, with very little adjustment, is fitting into recommendations of the National Nutrition Conference called by the President of the United States early in May. Today, with all our people becoming more health conscious, Mr. Strickler said, it is timely to adapt the home service program to fit into the community interests and in that way sustain the best consumer good will and the best sort of public relations we have ever had a chance to develop.

The subject "Do You Know—Vitamins and Minerals and How to Save Them" was keenly looked forward to by the group, because there are probably no two words more commonly used in the American language today than "vitamins" and

"minerals," discussed alike by people in professional fields, in all food organizations and in groups dealing with equipment aiding in the preparation of food for consumption. J. Ernestine Becker of the School of Hygiene and Public Health at Johns Hopkins University, associated with Dr. E. V. McCullom in the Department of Bio-Chemistry and co-author with him of the well known book "Food, Nutrition and Health" gave an extremely interesting presentation.

Miss Becker stated that "defense begins at home, especially in the kitchen." It is related to the food we eat or don't eat. Observations of humans, experiences of animal breeders and experiments with laboratory animals show that optimum physical development and resistance to disease are markedly influenced by diet. She outlined the characteristics of the major vitamins and minerals and their application in the system, and stated that if a daily diet included good food, carefully selected and carefully prepared, the necessary vitamins and minerals would be present and ready for assimilation.

She stated that the daily diet should include one pint of milk; four servings of fruit or vegetables in addition to potatoes—one should be leafy green or yellow, and one should be a citrus fruit or tomatoes; one egg; a serving of meat, fish or poultry; whole grain bread; whole grain cereals; and fish liver oil or some other source of Vitamin D. She stressed the correct preparation of food.

Emergency Plans Ready

Helen Smith, Rochester Gas and Electric Corporation, was introduced as incoming chairman of the Home Service Committee. Miss Smith said that, along with the other plans of the gas industry in meeting the present emergency, home service had not turned up missing in the roll call of "thinker-aheaders." For many months it has been advised that priorities, increased living costs and changing conditions in employment situations would affect home service programs very materially. Part of the work of the incoming Home Service Committee was to find out, through a questionnaire, about the new duties that the emergency was developing.

Miss Smith pointed out that demonstrations are still being given to promote the sale of new ranges, but emphasis is being shifted to cookery technique. All companies are reporting a decided increase in attendance at demonstrations, and the type of women attending is also changing, with women nutrition conscious and particularly anxious for information that will help stretch their food dollars. She pointed out that women who have not been cooking

for years are doing it now, because their maids have gone into factories, and a new group reported is made up of women who are working in defense industries and who want ways to prepare meals quickly. She outlined that home calls are being supplemented by survey calls, set up to assist women in greater use of present equipment in order to do more cooking at home because of increased food costs.

In answer to this question in a survey of gas companies:—"In fitting into the present emergency, on what basis do you judge the adaptation of the home service program and the value to your company in tying in more closely with community groups and meeting new demands?" the results were as follows: (1) Good public relations, (2) Many new contracts, (3) Increased use of gas because more food will be prepared at home and longer cooking will be required for less expensive foods, (4) Community acceptance. The gas company through its home service department will be a recognized factor in the community life, (5) Good citizenship, and (6) We will have the opportunity to explain gas service and importance to our customers.

To the manufacturers of the CP range, Miss Berry expressed her appreciation for the very attractive napkins set up to include the big seal and the names of the manufacturers participating in the CP range promotion. Boutonnieres were the gift of the Surface Combustion Company through R. L. Towne, sales manager.

Greatly assisting in the operation of the Home Service Breakfast was the Committee of 15 assigned to act as hostesses at the Breakfast. They included: Ruth Soule,

The Brooklyn Union Gas Company; Jane Roberts, Roberts and Mander Stove Company; Ruth Sheldon, Washington Gas Light Company; Mary Hall, Elizabethtown Consolidated Gas Company; Madolin Vautrinot, Atlantic City Gas Company; Mary Evans, Scranton-Spring Brook Water Service Company; June Stone, Rosemary Axford and Helen Farrell of

Public Service Electric and Gas Company; Mrs. Eliza Stephenson, Louise Sherred and Jeanne Barber of Jersey Central Power and Light Company; Francis McBeath, Virginia Electric and Power Company; Beatrice Cole Wagner, Philadelphia Gas Works Company; Mrs. Gertrude McCleary, New York and Richmond Gas Company.

Refrigeration Committee Maps Promotion Plans for the Emergency Period

WITH practically full attendance of its members, the A. G. A. Refrigeration Committee held one of the most important meetings in its history at Atlantic City on Sunday, October 19. The problem of maintaining and stimulating public acceptance of gas refrigeration during the emergency period when production will be substantially reduced, was discussed in great detail. In general it was decided that the committee should continue doing those things which had proved successful and that could be followed in the future, discarding nothing until it had found some new policy or plan better than those of the past.

The membership of the new committee has been set up upon a geographical basis and each member has been appointed to serve not only as a representative of his company but of other companies in his geographical region. Closer relationship has been arranged between the committee members and the six Servel district managers in order to expedite the work of the

committee during the coming year.

The question of whether a Salesman's Contest should be scheduled for the first quarter of 1942 was fully discussed, and it was unanimously decided that such a campaign should be planned and be ready for announcement during the early part of December, contingent upon the status of production then foreseen during the next quarter. Members reported that they favored cash awards because of their immediate value in maintaining salesman's earnings and for their aid in maintaining the *esprit de corps* of appliance salesmen.

Much attention will be devoted to the administration of the new Sales Training Course in gas refrigeration during the emergency period. New bases for Annual Best Performance Awards for gas companies will be announced shortly.

The Interim Committee, long employed to carry out the plans set up at each meeting of the general committee, was enlarged to be more directly representative of the Western, Middle-Western and Eastern regions. Members include C. V. Sorenson, chairman, George S. Jones, Jr., vice-chairman, of the Refrigeration Committee, and R. J. Vandergriff of St. Louis, Mo., A. L. McKinstry, Cedar Rapids, Iowa and R. D. Maxson, of Chicago.

The committee approved the distribution of Refrigeration News Letters periodically to gas company executives and sales managers for the purpose of keeping the industry informed of ways and means being utilized to maintain and promote the acceptance of gas refrigeration under the emergency conditions.

Gas Kitchen Calendar

A 1942 gas kitchen calendar printed in four colors, with authentic time and temperature charts and canning information on the reverse pages, has been produced by the Eldredge Company for the use of local gas companies. The illustrations have been taken from the gas industry's national advertising program and the calendar is a direct local tie-up with this program.

Detailed information on prices and imports may be obtained by communicating direct with the Eldredge Company, Morgan Avenue and Devoe Street, Brooklyn, N. Y.



A. G. A. Refrigeration Committee in session in Atlantic City. Left to right, front row: E. J. Boyer, incoming Section chairman; B. T. Franck, chairman; C. V. Sorenson, incoming chairman; J. W. West, Jr., George S. Jones, Jr., and J. J. Winn. Middle row: R. J. Vandergriff, E. J. Stern, J. A. Sackett, W. L. Hutcheson, C. K. Patton, A. L. McKinstry, and Ralph Steele. Back row: L. A. Fiorani, Fred Kenne, C. R. Davis, Frank H. Trembley, Jr., C. B. Wilson, F. M. Rosenkrans, and N. R. McKee



Industrial & Commercial Gas SECTION

GEORGE F. B. OWENS, *Chairman*

B. H. GARDNER, *Vice-Chairman*

EUGENE D. MILENER, *Secretary*

Industrial Gas Takes Its Place in Vanguard of March for National Defense

THE story of industrial gas for the past twelve-months is a story of adaptation to national defense of a machine which has been in preparation for over a decade. No sudden jolting from lethargy—no awakening from a prolonged siesta—no agonizing attack of growing pains. Simply a little orientation here, an extension there, a re-design problem occasionally, perhaps, plus a lot of progressive sound logic and lo! industrial gas steps forth as the very antithesis of bottlenecks and all that that term implies in our national defense program."

With these eloquent words at the first session of the Industrial and Commercial Gas Section in Atlantic City, N. J., October 20-22, Chairman H. Carl Wolf, president, Atlanta Gas Light Co., Atlanta, Ga., summed up in a nutshell the amazing progress of this branch of the gas industry since World War I. Facts and figures to complete this picture were presented later in the meeting when eight outstanding executives from the United States and Canada participated in a symposium on "Industrial Gas at Work in Production for National Defense," which proved to be a highlight of the entire Annual Meeting.

Owens Elected Chairman

Franklin T. Rainey, The Ohio Fuel Gas Co., Columbus, Ohio, as chairman of the Nominating Committee, presented its report to the Section. George F. B. Owens, assistant vice-president, The Brooklyn Union Gas Co., Brooklyn, N. Y., was elected chairman for the 1941-1942 term. B. H. Gardner, vice-president, Columbia Engineering Corp., Columbus, Ohio, was named vice-chairman.

Industrial gas has taken its proper place in the vanguard of the march for national defense, Mr. Wolf declared, giving full credit to the carefully planned and executed program of research, development and national advertising which has been under way for a number of years. "Manufacturers of industrial gas equipment have been continually striving, with the aid and advice of utility men, to devise better means of applying heat to the problems of modern industry. Their furnaces, burners and controls were ready when the call came for arms. Industrial gas departments in general, carefully selected, trained and staffed, were ready to give advice on the

problems encountered in this new rush for production. Industrial business has flowed to our lines and the benefits of our preparation have flowed out to industry."

Turning to the profitable commercial market which was thoroughly explored at the second session, Tuesday afternoon, Mr. Wolf said that "commercial gas has had a different set of conditions to meet. Industry changes fast enough but the habits of people are practically migratory. It is the job of commercial gas to keep up with this migration. The number of army camps, government projects and commercial establishments serving soldiers and defense workers, which today are using gas for food preparation, water heating, space heating and miscellaneous purposes, is some tribute to the adaptability of our fuel. The accelerated appearance of better-looking, better-designed, better-adapted, counter and kitchen gas appliances is a tribute to our manufacturers."

Mr. Wolf also paid tribute to the work and thanked the personnel of the Industrial and Commercial Gas Section and said that the march of gas for national defense

was due in no small measure to the Section's progressive program. He concluded with a warning for the industry to remember its responsibilities and to prepare for the perplexing problems which peace will bring.

With virtually all sections of the country represented, including Canada, the series of talks on Industrial Gas at Work in Production for National Defense gave a bird's eye view of the tremendous job gas is doing to provide fuel for a re-arming country. Following are some of the highlights of these talks:

Gas At Work In Defense

FRANK H. ADAMS, President, Surface Combustion Corp., Toledo, Ohio

I COULD not enumerate all of the places that industrial gas is at work in the defense program. Perhaps the best way to cover that is in the six words you know very well—"Wherever heat is used in industry."

In the three months' period ending September 1, our company alone sold gas furnaces totalling a yearly consumption of over a billion cubic feet. That is 125,000,000 cubic feet on a 70% load factor. In October, the producers of shells were notified that due to the reduction in manganese content they were going to have to heat-treat all of their shells, and the furnaces for those will run up an additional load of somewhere around 250,000,000 to 500,000,000 cubic feet. Such decisions are made overnight and the heat treatment and the things we are equipped to do in the way of gas furnaces become the answers to these questions of production.

You have seen the development in the application in large units of such things as convection heating, radiant tubes; all have played a very important part simply because we have gotten into capacities and are getting into still larger capacities in atmosphere furnaces in which muffles were too large to build. Your control of atmospheres over a very wide range of metals and processes, your continuous and batch carburizers, and particularly your continuous production, the technique of the use of high temperature alloys in conveying



H. Carl Wolf (right), chairman of the Industrial and Commercial Gas Section, and Eugene J. Stern, of Atlanta, photographed in Atlantic City



Frank H. Adams

mechanisms in furnace, have practically all grown up since World War I.

Now the transition to defense products which utilized these processes in many cases was a perfectly natural and easy one; that is, there is not much difference between continuous gas carburizing of transmissions for automobiles and the continuous carburizing of transmissions for tanks, as Chrysler has done. But it is interesting to see the extent to which many of those processes are entering into products which have nothing to do with defense activity.

There has been the development of solid armor-piercing shells in sizes unknown in the last war and made attainable principally by highly developed heat-treating methods and cycles and atmospheres which we did not have in World War I.

We have recently seen spheridizing operations in continuous furnaces come into the picture which have cut the time for spheridizing down to something like 10% of what it formerly was; the use of molybdenum in tool steels to conserve the supply of tungsten; the use of variable flame burners and control of scale in piercing operations on 105 to 155 millimeter shells. All these things show the great advance since World War I and the maturity of the gas industry to accept its responsibilities when called upon.

Industrial sales departments now have the biggest responsibility they have ever had. This arises from the fact that gas companies must, of necessity, be selective in the load that they take on the lines. Certainly, it is the wisdom of management to decide how much and what load it can take, judged in the light of its relative importance in defense, its permanence on the lines, future customer relations, and the importance of the different fields of industrial gas service over a long period of time. The industrial gas sales department has the opportunity to do one of the finest selling jobs it has ever done by going to the customer on the basis of the service it can render, not what it wants from the customer. Now is the time to build up your industrial service departments. Never were so many people operating furnaces who have had so little training in their operation. They need your guidance!

F. M. BANKS, Vice-President, Southern California Gas Company, Los Angeles, California.

AS is common in the natural gas business our systems on the Pacific Coast are designed to care for peak loads of residential and commercial business. Unused

Commercial Gas Meeting Report Next Month

The entire Tuesday afternoon meeting of the Industrial and Commercial Gas Section during the A. G. A. Annual Meeting in Atlantic City, N. J., was devoted to the profitable commercial gas load, and the following outstanding papers were presented:

Increasing Your Heating Business in Commercial Establishments

Elroy L. Payne, Vice-President and Gen. Mgr., Payne Furnace & Supply Co., Beverly Hills, Calif.

Charles F. Spicer, Vice-President & Gen. Sales Mgr., The Moore Corporation, Joliet, Ill.

Opportunities I See for Selling Commercial Gas

O. F. Keune, Sales Manager, Florida

Power & Light Co., Miami, Fla.

The New Counter Gas Appliances—Your Tools for Future Business—See 'Em! Know 'Em! Sell 'Em!

Emil Carl Sorby, Sales Promotion Director, George D. Roper Corp., Rockford, Ill.

Of unusual interest, was the dramatic demonstration of the many new attractive counter gas appliances by Mr. Sorby. This feature together with photographs and a summary of the session will be presented in detail in the December issue of the A. G. A. MONTHLY as lack of space prevents adequate coverage in this issue.



F. M. Banks

system capacity is employed during most of the year to sell gas to industries under surplus contracts which provide that service may be interrupted when the gas is needed for the regular or "firm" customers.

Our current industrial situation is complicated by three factors. First, because of several mild winters there has been very little necessity for interrupting service to any of our industrial customers, except those paying the lowest rates, so many of them have failed to keep their stand-by oil equipment in working order. A very large proportion of the smaller customers have either no stand-by equipment at all or it is very inadequate. In fact, a recent survey has indicated that while 83 per cent of the total volumetric load could be curtailed without injury to the customers, 50 per cent of the number of customers in Los Angeles County had no stand-by facilities or substantially none. Customers without stand-by face the prospect of shutting down if the gas supply is interrupted according to contract and many of them are willing to gamble.

The second factor is that oil shipments have been seriously curtailed recently due in part to the shortage of tankers operating from the West Coast ports and in part to curtailment of shipments to Japan. As less oil is produced, less gas is available to us since about 90% of the natural gas available to us in California is produced in conjunction with oil. This fact serves to accentuate the curtailment probabilities

which will result from winter weather, unless it is extremely mild.

The third, and impelling factor affecting our present situation is that industries engaged in defense production, in many instances, have not provided themselves with any stand-by facilities, or have expanded so rapidly that they have outgrown their former stand-by equipment. They cannot gamble on having to shut down if gas service is interrupted.

During the last war this situation was met when the California Railroad Commission devised a rate to provide "firm" service to at least such portions of defense loads as could not readily be served by stand-by equipment. That schedule, still in effect, provides costs higher than other industrial rates but lower than for commercial usage. Industrial customers who desire to prevent peak season shut-off to their essential uses of gas are privileged to apply to the California Railroad Commission for an hourly quantity of Preferred Gas to supply their essential needs. They are billed first for that hourly amount multiplied by the number of hours they operate a month. The balance of their consumption is billed at their regular surplus rate.

Some customers, among them most of the large airplane manufacturers, have protected themselves with a volume of Preferred Gas adequate for their essential needs. Others, newly entered in defense production of various sorts, have done nothing to care for the situation, expecting to be taken care of.

Among such defense customers are some who have received public praise from the military service for excellence in defense affairs. If we continue to serve those defense industries who have not protected themselves, just as we would to those who have protected themselves by paying

higher rates for years, we permit gross discrimination.

Experiences in serving military camps and bases cannot be greatly different from your own experiences. In California we find some companies serving at rates nearly as high as residential rates; others serving, as for cooking, heating and water heating, at a flat 25¢ rate per M.c.f. for 1100 B.t.u. gas.

In the case of my own company we have found it impossible to contemplate service for heating to additional camps partly because of the oil producing situation, partly because of system or localized capacity. Some criticism has resulted from our unwillingness to undertake such additional and temporary peak load burdens but our position has been that other sources of heating can readily be provided. In any case, we would certainly deserve criticism if we should undertake to serve the loads and then fail.

Extension of facilities to camps has been no mean problem. We have attempted to solve it by providing a rate form for such business, designed to make a fixed charge keyed to the investment required, a second fixed charge based on demand and a commodity charge compensating for favorable load factor.

WALTER C. BECKJORD, Vice-President and General Manager, Columbia Gas & Electric Corp., New York, N. Y.

OUR defense load on the Columbia System is growing by leaps and bounds. I suppose in some sections of our system probably 75% of our industrial business is defense business. That shows how far that is going to go, when you consider that the defense effort has only been going a relatively short time.

In our system, we handle a total of about 200,000,000,000 cubic feet per year and our peak load, largely due to heating last spring, was something in excess of a billion cubic feet. Of that amount, I suppose almost half is industrial gas, that is, half of the annual send-out, and of that amount approximately half is for industrial use.

Now, the matter of efficiency I think is probably going to have to be sacrificed in the interest of saving time. I think that the gas business has done an outstanding job in increasing the efficiency of their applications and thereby earning a larger rate. That probably has in some cases doubled. I refer to all the multiple steel processes that we have been working on for years, and the tremendous advance in the art of industrial burners and the design of industrial furnace, and things of



Walter C. Beckjord

that sort, in which I think Mr. Adam's group has been the leader. That has redounded to the benefit of the gas industry, because certainly it cannot survive without the industrial gas load.

In the past, we have been able to supply the industrial market without much interruption, for the reason that the lines had plenty of capacity and it was also possible to put on another compressor, perhaps. But that day, in my opinion, is gone and we have to face the necessity for stand-by equipment to be supplied by the industrialists themselves to maintain that continuous service which they most certainly need under present conditions. Unless that is done we are going to have a tremendous amount of criticism and backfire on the part of government authorities, and I think justifiably so, if no provision has been made to give that continuous service which is so necessary to mass production.

When the aftermath of this emergency comes, you are going to be up against a tough proposition, because the electrical capacity being installed in this country today is enormous and in my opinion is far beyond the demands of a peace-time effort. It is going to mean a very real competition. And bear in mind, too, that once apparatus has been installed it is not so easy to change it, because of lack of time and increased costs of investment and things of that sort, which all have a predilection for utilizing present equipment.

Urges No Waste of Equipment

That brings up the needs in this industry for us using all the present equipment we can, even though it may not be as efficient as it otherwise should be. Great progress has been made by our industrial engineers in adapting burners for that kind of competition. It is going to be utterly impossible, in my opinion, to get material in the near future that is not absolutely essential for war effort, and I think some of us are going to have great difficulty in getting material even to maintain our service. So we have got to plan accordingly.

A great deal of constructive work can be done by our organizations in studying the problems of the industries we serve and in endeavoring to work out with them a safe and sane program that is going to get results, because in their greatly expanded personnel forces there is bound to be a lot of lost motion and lack of coordination, and sometimes utter stoppage of things that should go on. And that, in my opinion, is where our engineers who know those problems intimately can function to the best advantage and can build up a reserve of confidence in our industry that is going to be extremely valuable in the days to come. And that time may come a lot sooner than we think.

It all goes to show that slowly and carefully the gas industry is building up a background of experience and development that is going to be a tremendous anchorage for the future, and I think that is a thing we ought all to bear in mind.

R. L. FLETCHER, Vice-President, Providence Gas Company, Providence, R. I.

NEW ENGLAND has had a leading role in the development of rifles and pistols and each of the six New England states has contributed its share. Most of the direct production however has centered around Springfield, Mass.



R. L. Fletcher

As early as 1776, Lieutenant Henry Knox of General Washington's staff recommended "that there be one or more capital laboratories erected at a distance from the seat of the war, in which shall be prepared large quantities of ordnance stores of heavy species and denominations." This recommendation was strongly endorsed by General Washington and in the form of a resolution was finally adopted by the Continental Congress. Various sites for the New England Arsenal were considered. Springfield, Mass., was finally chosen and here the army was erected in 1777.

As the country grew, other than military uses for the rifle developed and many private companies in New England were engaged in its manufacture, resulting in the successive improvements from the early muzzle-loading, flintlock musket, through the percussion cap to the breech-loading unit cartridge to the repeaters and finally the automatics and semiautomatics. Many of these companies have continued down through the years, until today we find the following well-known American rifle manufacturers: Winchester Repeating Arms Company, Remington Arms Company, Marlin Firearms Company, J. Stevens Arms Company, Savage Arms Corporation and O. F. Mossberg and Sons. All of these, except Savage, have their headquarters in either Massachusetts or Connecticut.

Role of New England Craftsmen

Colts and Smith and Wesson, prominent in the development of pistols and revolvers, are also New England firms. It is probably not generally known that each of these have manufactured rifles.

With such an historic background, it is not strange that the New England craftsman should be playing a leading role in our preparation for national defense, to the extent that today our manufacturers have largely turned from their peacetime pursuits to the production of arms and ammunition, machinery and other equipment for the defense of our National Security and for the aid of nations friendly to us.

In outlining the defense activities in

New England, I have selected only the larger cities but they represent a fair cross section of the whole. The smaller cities are also teeming with activity and gas is playing its part—just how big a part cannot be accurately determined. We do know that the sale of industrial gas in New England increased 10% in 1940 over 1939 and has further increased about 18% for the first six months of 1941 over the similar period in 1940 and the increase continues. Most of this increase in undoubtedly being used directly or indirectly in the defense program. But this is not the whole story. Many of our regular customers have turned in part or entirely to the production of defense material. Some of our companies estimate that as much as 75% of their industrial gas sales is going into defense in one phase or another.

HERMAN RUSSELL, President, Rochester Gas & Electric Corp., Rochester, N. Y.

COMPARATIVELY

speaking, the part that Rochester is playing, as far as industrial gas is concerned in this defense program, is relatively small. However, sometimes these small things may be very important, and I shall confine my remarks to a few things that are taking place in Rochester that might be of interest to you.

About 75% of the industrial gas which we are supplying now is probably going into defense industries. The most important one of those is Bosch & Lomb, who use manufactured gas entirely for their glass melting operations. This concern, you may remember, was the one which developed the manufacture of optical glass for the Army and Navy just prior to the last World War. And I can say truthfully that had it not been for their foresight and progress in going into this development at the time they did, the United States would have been caught practically without glass for the manufacture of optical range-finders and all the other similar equipment that goes into the Army and Navy work.

The use of manufactured gas for their processes is practically essential. It is high precision work and requires very careful control of temperatures. The use of oil or other fuels, outside of possibly electricity, is practically out of the question. So we have been taking care of that load, and naturally it has been growing very rapidly. They have built additional furnaces and still are building them. They are located close to our plant and we are supplying them direct from the plant, and we shall continue to take care of that load.



Herman Russell

In addition, there are about twelve other large industries that are very largely dependent upon manufactured gas in their heat-treating processes. Eastman Kodak plant uses large quantities of our gas. The General Railway Signal firm uses large quantities and the machine tool trades are also using large quantities.

Our extension practice falls right in line with what the previous speakers have said. We are trying to take on loads which we feel will be permanent. We are requiring other consumers to finance loads which we feel will be temporary. We are going out of our way to take care of such firms as Bosch & Lomb, where the use of gas is practically essential in their operations, and we are turning other business over to oil if it is of a temporary nature.

J. V. STRANGE, Vice-President, United Gas Corporation, Houston, Texas

MAJOR new industries or new army camps have been the spectacular things that all could see. Yet even in these cases the gas industry has had to follow the same steps they have used for some time with new customers. It was necessary to seek out the proper parties, complete negotiations for an agreement and proceed with the construction. Practically all of this has been done with manpower accustomed to performing these types of services.

Less spectacular to the general public and perhaps to our own organizations has been the growth of consumption of existing customers. The reason for this growth is apparent for those large metal working industries that could become prime government contractors. However, much has been happening to other than these customers.

In areas where army camps are located, or where there are increased industrial activities, there has been a large increase in the laundry business for instance. This has not limited itself to existing laundries but in many cases what was formerly a small cleaning and pressing shop is now a laundry and cleaning plant. In many cases the smaller concerns are handling laundry business on a sub-contract basis from the large concerns.

All of this increased business is planned without any concern as to available fuel. Gas is available. It has been there when the demands were made. Even where enlarged meter and regulator stations are required, these have been immediately supplied when the need was demonstrated. It could almost be said that the availability and dependability of gas is taken as a matter of course.

The question of the future of many small businesses raises the question of what ef-



J. V. Strange

fect their varying fortunes will have on the gas industry. Speaking strictly for our own company, we have found that over 25% of our industrial gas goes to industries processing agricultural raw products and food, none of which seems will be seriously affected by priorities. Another 15% goes to laundries and cleaning and pressing establishments, which is on the increase in gas use. A large part of the balance goes to production or processing such raw materials as salt, oil, or the filtering clays used in refining lubricating oils. Only about 11% goes into forge shops, foundries and miscellaneous industries and some of this group have defense orders that are increasing their consumption. Thus it appears that probably not over 5% of industrial gas consumption in our company can possibly be affected by any restrictions on small businesses. This means that our job is definitely to keep on rendering the best uninterrupted gas service possible.

It is logical for the gas industry to have protection against possible inflation by commodity adjustment clauses in its industrial contracts, thus permitting increases in prices if all-commodity indexes advance beyond certain defined limits. It is part of meeting this emergency to provide for tax clauses in industrial contracts that pass on taxes that are directly allocated to the consumption of each thousand cubic feet of gas. It is part of meeting this emergency to see that expenditures for new service facilities are on a sound basis so that these expenditures will be returned to maintain the economic soundness of the gas industry.

EDWARD J. TUCKER, Director and General Manager, Consumers Gas Co. of Toronto, Toronto, Canada

AT the start of the war Canada had virtually no war industry, but today her manufacturing capacity is largely occupied with war work.

War materials now being turned out in Canada include: corvettes, minesweepers, many types of small naval vessels, aircraft, tanks, mechanized transport, vast quantities of armaments such as guns, rifles, shells and ammunition, explosives, chemicals and military equipment too numerous to mention.

For the year ending March 1942, Canada's shipments to Britain, including war materials and food supplies, will reach a sum of \$1,500,000,000 equal to \$23,000,000,000 in terms of United States population and income.

War service must of necessity take first place in all our plans and the gas industry in Canada is giving precedence over every-

(Continued on page 413)



Edward J. Tucker



The Pan American Coffee Bureau is running a contest this month among hotels to bring out ideas for increasing coffee consumption in hotels. Better check the gas coffee brewing equipment in your hotels right away. Remember, your inn keepers are coffee conscious this month.

Hats off to Elsa M. Weyland, President of MagiKitch'n Equipment Corporation. She is setting a thrilling pace in promoting counter gas appliances. Some of you men had better look to your laurels when a lady is going around the country turning on charm plus real sales ability. She makes good appliances, too!

Keep 'Em Flying! To help meet OPM schedules of 4,000 aircraft per month by Mid-1942, Iron Fireman's Big Portland plant is busily engaged in turning out airplane parts for Boeing. On the job is a large gas-fired annealing oven which assures meeting the high standards required by Uncle Sam and Boeing.

Read 'em and reap! Pertinent new articles on Industrial Gas. Radiant Tube Gas Furnace for Heat Treating Aluminum Alloys, METALS AND ALLOYS, September, p. 295 . . . The Heating and Heat Treatment of Ordnance, STEEL, September 15, p. 72. . . . Transition to Defense Production, WESTERN MACHINERY AND STEEL WORLD, September, p. 458 . . . Weather-proofed for the Clouds, AMERICAN MACHINIST, September 17, p. 907 . . . Shell Case Annealing Furnace Design Eliminates Post-War Obsolescence, HEAT TREATING & FORGING, September, p. 469.

Dollars in doughnuts—especially when there are doughboys around. Last month was national doughnut month, but don't let it end there. Here's your chance to cash in on that industry's national promotion. \$81,000,000 sales chalked up for 1940 rates this as a "major" business . . . doughnuts and coffee make a pair worth going after in more ways than one!

165 industrial and commercial men served on your Section's 1941 committees . . . gathered and compiled data for committee reports you took home from Atlantic City. Thanks to a fine group of men.

The Special A. G. A. Controls Display at the National Metal Exposition was something new this year. How did you like it?

A man-sized job thinks Harry Woolman when he considers the size and responsibilities of his new job as Chairman of the Food Service Committee.

We're betting on Bob LeMay as Chairman of the Metal Treating and Melting Committee. Remember, Bob, this is the fastest growing use of gas, and darned important now.

Watch Jimmie Dare put steam back of the new Industrial Space Heating Committee.

Thanks to Carl Sorby for putting the counter appliance story across with a bang. Watch sales go up.

Big doings of the year head up at the National Metal Congress and Exposition. This year was no exception, with hordes of industrial gas men and manufacturers putting gas to work for national defense.

The National Restaurant Exposition seemed almost like a gas convention what with things centering at the A. G. A. Exhibit and many manufacturers displays. Manufacturers and utility men were on the job all week.

Only three exhibits used the word GAS at the National Restaurant Exposition—A. G. A., Blodgett and Robertshaw. Some people were asking if the heavy duty stove fellows and others were still in the gas appliance business. How about it?

INDUSTRIAL AND COMMERCIAL NATIONAL GAS ADVERTISING FOR NOVEMBER

The National Advertising Committee of the Industrial and Commercial Gas Section, J. P. Leinroth, chairman, and F. B. Jones, vice-chairman, announces that full-page advertisements will appear in the trade and business magazines listed below during the month of November. These advertisements, which will appear in 16 publications reaching a total audience of 288,587, are prepared in cooperation with the Committee on National Advertising as a part of the Association's national advertising campaign.

General Manufacturing

BUSINESS WEEK (Nov. 22— $\frac{3}{8}$ page ad)—Production lagging? Speed up—with Industry's fastest quality fuel—GAS.

Ceramic Industry

CERAMIC INDUSTRY—Business Week ad entitled: "If it's done with heat and you've got to do it faster," plus tie-in ad on GAS in the Ceramic Industry.

Baking Industry

BAKERS' HELPER (Nov. 8)—"Aye, Aye, Sir"! Naval Training Station, San Diego, Calif., installs GAS for baking.

Metals Industry

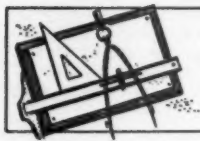
THE IRON AGE (Nov. 6)—Business Week ad entitled: "If it's done with heat and you've got to do it faster," plus tie-in ad on GAS in the Metals Industry.
STEEL (Nov. 24)
INDUSTRIAL HEATING
HEAT TREATING & FORGING

Food Service

CHAIN STORE AGE (Fountain and Restaurant Section)—Here's Why—the trend is to GAS for all counter cooking.

Hospital

MODERN HOSPITAL—"I must have flexibility—with GAS alone we have close control, speed, clean heat, and economy."



Technical SECTION

HAROLD L. GAIDRY, *Chairman*
J. H. WOLFE, *Vice-Chairman*
A. GORDON KING, *Secretary*

Technical Men Take Steps To Meet Problems of Expanding Industry and Plant Protection



Left to right—John H. Wolfe, Baltimore; H. L. Gaidry, New Orleans, Vice Chairman, Technical Section; D. P. Hartson, Pittsburgh, Chairman, Technical Section; S. P. Cobb, New York; A. Gordon King, New York, Secretary, Technical Section

THE composite elements that make up an efficient operating machine in the gas industry are fully ready to meet the challenge of increased production, plant protection and a multitude of other problems born of the national emergency was the consensus of those who attended the Technical Section sessions in Haddon Hall, Atlantic City, N. J., during the twenty-third annual meeting of the American Gas Association, October 20-22. Authoritative reports on operating problems were augmented by a colorful firsthand account of lessons to be learned from England's harrowing experience and a description of a forward-looking defense program now being organized by a great metropolitan gas company.

It was a banner meeting in all respects, ably managed and directed by Dorr P. Hartson, operating manager, Equitable Gas Company, Pittsburgh, Pa., and chairman of the Technical Section. Chairman Hartson presented his annual report at the first session, Monday morning, in which he stressed the work the Section had completed in connection with national defense, and particularly the large amount of useful information gathered as a result of the defense questionnaire. He spoke particularly of cooperative work with government bureaus and other organizations.

Following the chairman's report, Harold L. Gaidry, New Orleans Public Service Inc., New Orleans, La., was elected chairman of the Technical Section. John H. Wolfe, Consolidated Gas Electric Light & Power Co. of Baltimore, Baltimore, Md., was named vice-chairman.

Brief summaries of the following committee reports were then presented: Chemical—E. L. Sweeney, Boston Consolidated Gas Co., Everett, Mass., chairman; Distribution—L. W. Tuttle, Public Service Co. of Northern Illinois, Oak Park, Ill., chairman; Gas Production—L. E. Knowlton, Providence Gas Co., Providence, R. I., chairman; Gas Conditioning—R. E. Kruger, Rochester Gas & Electric Corp., Rochester, N. Y., chairman; and Operation of Public Utility Motor Vehicles, R. H. Clark, Consolidated Edison Co. of New York, Inc., chairman. These valuable reports are printed and are available from the Association.

By the Technical Section Editorial Committee

JOHN H. WOLFE, *Chairman*

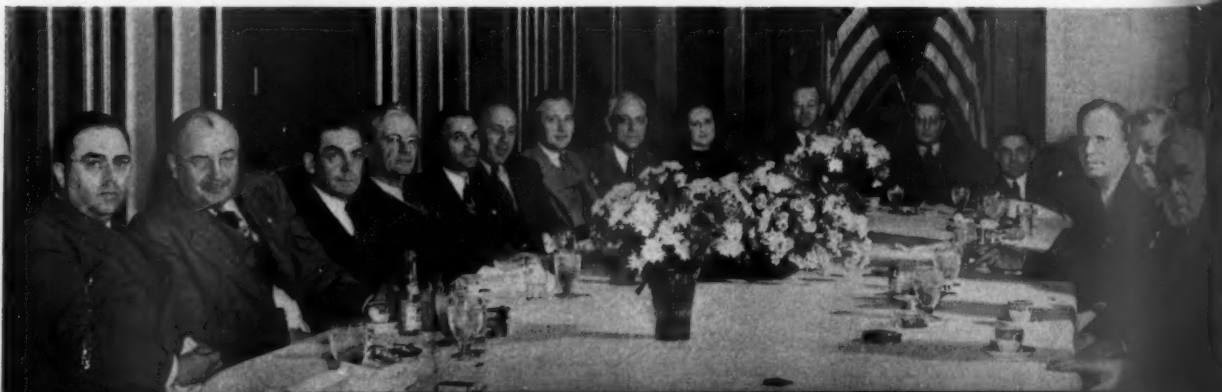
Utility Conditions in England

The outstanding feature of this session and one of the biggest hits of the entire Annual Meeting was the address of Frank M. Roessing, director of public works of the City of Pittsburgh, Pa., on Utility Conditions in England. As a member of a committee of five official observers, Mr. Roessing had made a six-weeks' tour of England and made a first-hand study of the Air Raid Precaution system which is working so efficiently in that country. His remarks held the packed audience enthralled for more than an hour at the meeting.

After describing his trip by Clipper plane to England, Mr. Roessing presented a graphic picture of conditions there. He had high praise for the morale of the people but said that they were short of food and clothes. "They have very little sugar, no cream or butter, no red meats and no fresh fruit but they do have plenty of vegetables

TECHNICAL SECTION MANAGING COMMITTEE MEETING IN ATLANTIC CITY

Left to right—L. W. Tuttle, Oak Park; E. L. Sweeney, Everett; R. J. Sheridan, Brooklyn; Jan V. Ray, Richmond; John V. G. Postles, Philadelphia; R. E. Kruger, Rochester; R. H. Arndt, Baltimore; R. G. Griswold, New York; Gladys Hanshaw, New York; D. P. Hartson, Pittsburgh, Chairman, Technical Section; H. L. Gaidry, New Orleans, Vice-Chairman, Technical Section; C. F. Turner, Cleveland; L. J. Eck, Minneapolis; L. J. Willien, Chicago; S. P. Cobb, New York; and E. C. Brenner, Milwaukee. (Background to the right): H. D. Lehman, Philadelphia, and C. S. Goldsmith, Brooklyn





Left: F. M. Roessing, Pittsburgh, Dir., Public Works. Above: C. S. Goldsmith, Brooklyn, Vice-Chairman, Distribution Committee

W. H. Weber, Brooklyn, Chairman, Appliance Servicing Subcommittee, discussing his joint paper from the floor. Also in the picture are: W. J. Murdock, Joliet; J. H. Wolfe, Baltimore; S. P. Cobb, New York; Samuel Green, Brooklyn, and A. R. Powell, Pittsburgh



Left to right: Dr. A. W. Gauger, Pennsylvania; T. L. Robey, Washington; D. P. Hartson, Pittsburgh, Chairman, Technical Section; R. J. Sheridan, Brooklyn, Vice-Chairman, Chemical Committee;

Mrs. A. W. Gauger, Pennsylvania; Dr. Wilbert J. Huff, Silver Springs, Md.; T. P. Keller, Long Island City; C. B. Clark, Belmar, N. J.; R. Van Vliet, Staten Island, and George F. Biggmann, New York



Left to right: H. G. Horstman, Indianapolis, Chairman, Subcommittee on Appliance Servicing, Technical Section; John L. Eberle, Albany; T. G. Pendlebury; H. K. Seeley, Syracuse; R. E. Kruger,

Rochester, Chairman, Gas Conditioning Committee; Arthur C. Cherry, Cincinnati, Chairman, Subcommittee on Pipe Joints and Pipe Materials, and E. G. Boyer, Philadelphia



Left to right: R. D. Williams, Troy; R. H. Arndt, Baltimore, Vice-Chairman, Gas Production Committee; D. P. Hartson, Pittsburgh, Chairman, Technical Section; Jean Y. Ray, Richmond, Vice-Chairman,

Committee on Operation of Public Utility Motor Vehicles; William I. Battin, Indianapolis; Alfred Hurlburt, Dallas; W. H. Fulweiler, Philadelphia, and H. J. Meredith, Kearny, N. Y.

with the exception of onions." The women are doing a wonderful job in replacing the men in civilian life, he said, pointing out that they were engaged as plumbers, pipe fitters, electricians, gas men, wheelwrights, machine operators, and in other occupations and were doing a better job in some cases than the men they replaced.

Mr. Roessing said that the destruction in England was greater than he had imagined and estimated that a third of London is badly battered. He spoke particularly of fire prevention methods and pointed out that more damage had been done by fire than explosions. Several British officials estimated that approximately 70 per cent of the damage was done by fire. He described a small trailer fire pump on two rubber tired wheels, consisting of a Ford motor and fire pump, which was being used effectively to combat fires.

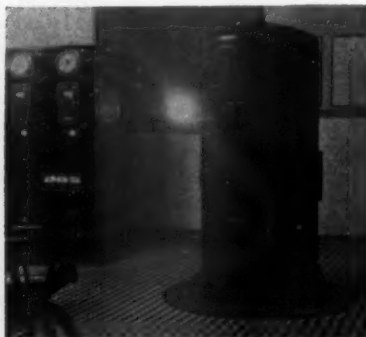
London Had Many Gas Breaks

Turning to the gas industry, Mr. Roessing said that last year London had 10,681 gas mains broken. Of this number, 346 were 48" to 60" and 334 were 24" to 36". He urged gas companies in this country to be prepared to make such repairs in the event of an emergency, and said further that plans should be made for mutual assistance in case of war. He strongly recommended that municipalities be provided with accurate, complete maps of utilities.

A great deal of the destruction in England was due to the old gas distributing systems, he pointed out. Since the war they have been putting in valves, but now when there is a break they have to use a rubber balloon to plug up the broken main." He mentioned a device for shoving a bag through a service connection into the main and then blowing it up afterward.

Describing the Birkenhead gas works, which had been severely bombed, Mr. Roessing said: "They had three direct hits in one night. The plant was all tied together with haywire. Their conveyors were gone but they were wheeling their coal in wheelbarrows and they told me that after the blitz they were making gas in forty-eight hours; again showing the English spirit." He showed pictures of this plant.

Referring to air raid shelters, Mr. Roessing



An air raid shelter in the office of an English utility

A direct bomb hit on a gas holder in England caused the damage shown in this picture. As can be seen, there was no fire or explosion following the hit. The group below are A.R.P. workers ready for their vital tasks



sing said that the government authorities in England were now recommending a small re-inforced brick shelter which will hold six people. Plants are being protected by means of a light steel or tar paper covering on a pipe scaffolding framework. He pointed out that most of the British plants and structures are not as large as ours and that we would undoubtedly have many problems to meet. Large buildings are camouflaged to look like a row of dwelling houses, he said.

It was Mr. Roessing's opinion that the country was well protected against invasion. "Every level field in the country is a mass of wires to stop airplane landing. Every city and town is protected with a balloon barrage. They have pill boxes all over the place."

Urges U. S. Preparedness

In the discussion following Mr. Roessing's address, J. D. von Maur of the Consumers Gas Company of Toronto, urged the gas industry to take steps to meet any crisis. While most companies are prepared for emergencies, they are not prepared to cope with breaks in the number and size which had occurred, for example, in London. He mentioned that he was a pioneer in getting valves installed on every 2500 feet of high pressure mains.

The Tuesday afternoon meeting of the Technical Section opened with a valuable paper by R. E. Kruger, superintendent, gas manufacturing department, Rochester Gas & Electric Corp., Rochester, N. Y., on "Interesting Developments Concerning the Saving of Gas Oil by Mixing High B.t.u. Coke Oven Gas and Blue Gas." The problem covered in Mr. Kruger's paper which resulted in a saving of gas oil was described as follows:

"Experience over some years of operation indicate that when we operated our coke ovens at capacity, we produced 12,621 M of 636 B.t.u. oven gas, and when we mixed this with 140 B.t.u. producer gas, we produced 15,480 M of a mixture of oven gas and producer gas having a B.t.u. value of 545. In this case the oven gas represented

81.3% of the mixture and producer gas 18.7%.

"Now, if we use blue gas for mixing, the same 12,621 M of 636 B.t.u. oven gas gives a mixture of 17,309 M having a B.t.u. value of 545. Here the oven gas represents 72.8% of the mixture and blue gas 27.2%. It is obvious that we have increased our coke oven gas capacity from 15,480 M per day to 17,309 M per day without carbonizing additional coal. And, obviously we could meet 17,309 M sendouts without making any carburetted water gas whereas before we could only meet a sendout of 15,480 M without making water gas.

Gas Oil Saved

"It is at once apparent that in this setup we made 45.8 tons of coke do the job formally done by 5670 gallons of gas oil and, since this was excess coke, we considered it good business. Whether it is good business at anytime depends largely upon the price relationship between coke and gas oil or more broadly between generator fuel and enriching oils."

After considerable study and extensive test work on appliances, Mr. Kruger's company proceeded to meet directly winter loads of 1940-'41 by adding blue gas to their oven gas and making as little 540 B.t.u. water gas as possible and consequently using as little oil as possible. This proved successful from both operating and distribution points of view. In the latter case, service complaints were 20% less although what portion of the decrease was due to the training given service men and what part was due to the type of gas distributed could not be determined.

As summed up by Mr. Kruger, this method had the advantages of (1) decreasing the amount of gas oil used, (2) the plant used considerably more coke, which they made themselves, thereby enabling them to run their ovens to capacity for a longer time, (3) when making blue gas to meet an equivalent carburetted water gas load, more machine capacity had to be on the line. An interesting by-product of the study, Mr. Kruger stated, was the appliance servicing data which resulted from the thousands of tests and observations made.

The question of appliance servicing was thoroughly examined in the next paper, a joint study by H. G. Horstman, Public Serv-

ice Co. of Indiana, Indianapolis, and W. H. Weber, The Brooklyn Union Gas Company. After pointing out that servicing problems are growing greater instead of less, the authors presented interesting facts based on a survey of various companies. Among the points brought out are the following:

In the selection and training of personnel, the trend in teaching is to develop in a man the ability to analyze and service any appliance, instead of teaching him to service each type of appliance in a different manner.

Some companies have set a period of only 30 days as their "service watch" period but it was the consensus of the authors that the check for repeat calls should be maintained for a longer time, preferably a six months' period. Some companies are referring "repeat calls" back to the man who made the original adjustment which tends to increase individual responsibility.

Reports from companies who have inaugurated a plan for shop testing all appliances before they are installed on customers' premises indicate complete satisfaction with this work and their records show a definite reduction of service calls on new appliances.

Shortage on Truck Tires

Service costs are increasing and many companies are feeling their way but the trend is toward some sort of charge. Many companies already have maintenance agreements for refrigerators and some have similar agreements for cleaning and maintenance of house heating equipment, but charging for regular calls is less common. Several companies have already put into effect charges for calls on ranges and refrigerators out of warranty without experiencing much adverse criticism. Higher taxes, increased labor rates, and national defense demands may force the issue sooner than expected, Messrs. Horstman and Weber conclude.

"Motor transportation today is a vital factor in the manufacture and distribution of all of the products of the gas industry and has become an important item in the cost of production, distribution, maintenance of service, and delivery of appliances," Jean Y.

Ray, Virginia Electric & Power Co., Richmond, and vice-chairman, of the Committee on Motor Vehicle Operation, pointed out in an authoritative paper on "Motor Vehicles in the Gas Industry." The cost of operating these vehicles is great enough to make a scientific approach to the problem necessary to public utilities, he said.

Of particular importance at this time, Mr. Ray said, is the problem of replacement of parts for repair and maintenance in the face of material shortages. "While the Office of Production Management has promised that there will be ample replacement parts for repair and maintenance and has assigned an A-10 rating to help obtain these parts," he declared, "nevertheless it is a fact that certain parts are already very hard to obtain and the present tendency is to place other types of fleets ahead of utilities in order of importance."

Shortage on Truck Tires

The tire situation also demands close scrutiny, Mr. Ray said, and certain large truck sizes are far from plentiful even now. He advised transportation men to secure a stock of supply materials and spare parts in storerooms but warned against obtaining an overstock of parts that may become obsolete, or that may be the cause of barring a company from using the A-10 priority rating in connection with material needed by other departments.

Mr. Ray urged careful study on the part of transportation engineers to make the "old coat" do even though the patches are apparent. "There is a challenge to everyone of us to devise new methods of coping with the problem of the ever-widening demand and decreasing supply of materials manufactured from basic materials required for defense," he said.

An informative paper on the "Recovery of 'Pyridine Bases' from Coke Oven Gas and Methods for Determining Them," was presented by H. J. Meredith, chief chemist, Koppers Company, Seaboard Division, Kearny, N. J. The spectacular success of sulphapyridine in the medical field has fo-

cused attention on the recovery of this valuable ingredient.

Mr. Meredith said that enough of this drug can be made from the pyridine from one ton of coal to treat three cases of pneumonia so that the potential palliative from a coke plant carbonizing 3000 tons a day would relieve the suffering of about 3,500,000 persons per year, so it was doubtful if this use was entirely responsible for the extent of the demand for pyridine. He then proceeded to give a complete description of a continuous process for recovering "pyridine bases" or tar bases which had proved most economical. His paper is a valuable contribution to this subject and represents a thorough study of the problem.

The fruitful technical sessions were brought to a close with a highly interesting description of methods of meeting emergencies and preparing for national defense developed by The Brooklyn Union Gas Company. C. S. Goldsmith, assistant engineer of distribution, and vice-chairman, Distribution Committee, made the presentation and showed pictures of the training methods and procedure. A separate article in this issue of the MONTHLY carries this story in full.

BROOKLYN DEFENSE CORPS

(Continued from page 380)

marily intended to provide for an increased make and greater flexibility of operation. From the defense angle, the increased flexibility might prove of great importance in providing a source of gas supply which could replace water gas to a considerable extent for mixing with refinery gas.

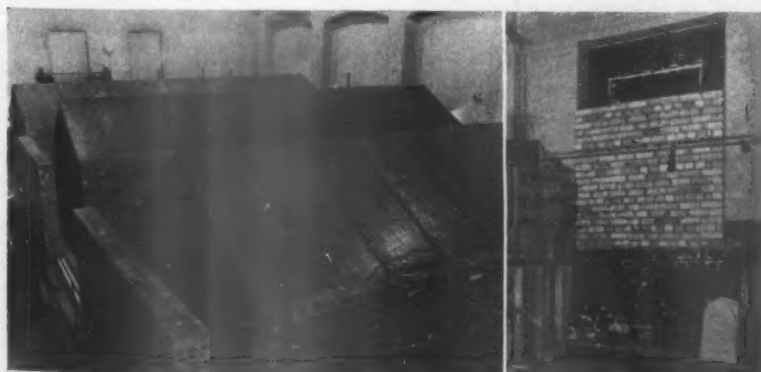
A program which is being studied and has been partially completed covers the following points: methods of getting out supervisory men in case of emergency, methods for obtaining extra labor, experimental operation with a large holder out of operation, study of duplication of equipment, interconnections with other utilities, protective measures for personnel and property, and contacts with other utilities in the area for exchange of information.

Thus one great company looks ahead and makes its plans for any contingency.

Obituaries

Peter Young, formerly general manager of the gas department of the Northern New York Utilities, Inc., (now Central New York Power Corp.), died Sept. 26. Mr. Young was retired.

E. W. Eustace, plant superintendent, The Key City Gas Co., Dubuque, Iowa, died September 27.



These brick walls and metal coverings protect utility machinery from damage by bomb splinters. At right is an interior view of a window which has been bricked up and blacked out for the protection of workers



A. G. A. Research Bulletins Cover Water Heater and Tube Lighter Design

By F. J. RUTLEDGE

Chairman, Committee on Domestic Gas Research



F. J. Rutledge

POPULAR acceptance of domestic and industrial gas research conducted at the American Gas Association Laboratories has been demonstrated by numerous requests for published material on such subjects, as well as suggestions for its continuance and expansion into unexplored fields. As a fitting close of the fiscal year ending September 30, two additional bulletins have been published and are now being distributed to the industry.

Bulletin No. 12, "Principles of Gas Storage Water Heater Design for Maximum Hot Water Delivery," is the second bulletin completed on domestic gas water heating research. Subdivided into two sections, the first covers a study of the influence of heat application to water heating vessels in producing stratification or separation of hot and cold water during heating periods.

The second covers the effectiveness of dip tube design or other methods of introducing cold water to the storage vessel for accomplishing a separation of hot and cold water during draw periods. Scientific means are developed to provide the maximum amount of hot water for the least amount of gas burned. The bulletin provides much additional information in a field where "rule of thumb" methods had previously largely prevailed. For this reason it is believed that it should prove helpful to manufacturers and utilities as well as provide improved water heating service to consumers.

Bulletin No. 14, "Fundamentals of Automatic Flash Tube Lighter Design," represents the first attempt by any organization or individual to publish scientific information on this subject. It also constitutes the third bulletin on domestic gas range research. As evidenced by current emphasis of automatic operation of modern appliances, the importance of this bulletin may be readily appreciated. Since flash tube lighters are more commonly employed in contemporary domestic gas range top burner sections than

any other automatic type of ignition, this bulletin is confined to this type of lighter.

Detailed data presented on principles of lighter design, including size and location of flash tubes with relation to burner and lighter ports, and their effect on satisfactory ignition. Characteristics of fuel gases as they affect lighter design, based on results of extensive tests are fully covered. It is evident that the information presented

will be of great benefit to those interested in designing new equipment or improving present units. From the consumer point of view, there is no doubt that this information will result in providing more positive and quicker automatic top burner ignition.

Work on which the above mentioned bulletins are based is being conducted under the supervision of the Association's Committee on Domestic Gas Research together with assistance of Technical Advisory Committees of Manufacturers. Copies of these bulletins may be obtained at nominal cost from the American Gas Association Testing Laboratories, 1032 East 62nd Street, Cleveland, Ohio.

N. T. Sellman Resigns as Chairman of Laboratories' Managing Committee



N. T. Sellman

NILS T. SELLMAN tendered his resignation as Chairman of the Laboratories' Managing Committee of the American Gas Association on October 1. Being more responsible than any other single individual for the preparation of initial plans for the Laboratories construction and operation

and actively participating in their consummation, his resignation leaves a vacancy on this committee which will be very difficult to fill. His foresight and executive ability are evidenced by the facts that only minor changes have been made in these plans, and that today the Laboratories are the largest agencies of their kind in the world. The modern Pacific Coast Branch, erected in 1939, reflects his leadership and is one of the outstanding accomplishments occurring during his term of office.

Mr. Sellman has been a member of the Laboratories' Managing Committee since its organization in 1924. First in the capacity of Secretary and from 1938 until his recent resignation as Chairman, he has contributed much to the Laboratories' rapid growth and high standing in the gas industry. Always looking forward to utilizing their facilities to the fullest extent, he has been responsible to a large degree for their expanded activities.

Mr. Sellman was also an active member of the Committee on Industrial Gas Re-

search and the Committee on Domestic Gas Research from the time of their organization. His intimate knowledge of gas utilization from both the technical angle and from the angle of commercial requirements, together with his ability to analyze the needs of the future, made him an unusually valuable member of these committees. He acted as direct sponsor of several of the more important projects that have been undertaken by these committees.

As Chairman of the Committee for Improving Domestic Appliances, it was through his efforts that Certified Performance standards for gas ranges were completed. This development has resulted in availability of a wide variety of the highest quality ranges to the gas-consuming public.

Since graduation from Stevens Institute of Technology in 1913, with the degree of mechanical engineer, Mr. Sellman has been actively engaged in the gas industry. His first position was with the Department of Utilization of the Consolidated Gas Company of New York. In this capacity he rapidly gained prominence as one of the foremost engineers in the gas business. In 1921 he became a member of the staff of the American Gas Association. In October, 1923, he was appointed Assistant Secretary-Manager which position he held until his reemployment by Consolidated Gas Company of New York in January of 1925. Reflecting his wholehearted efforts in promoting the welfare of the gas industry, he was selected as the first recipient of the Charles A. Munroe award in 1929 for his outstanding contributions to advancement of the gas industry.

Laboratories Begin Annual Inspections

ANNUAL inspections at plants of gas appliance manufacturers throughout the United States and Canada were initiated in September. Ten companies have been added to the list of manufacturers of approved equipment during the past year, making a total of more than 400 concerns to be visited. Over three-quarters of this number will be inspected from the Cleveland Laboratories and the remainder from the Pacific Coast branch. In the course of these trips and unannounced inspections made during the coming year, Laboratories representatives will travel approximately 75,000 miles. Their inspection staff has been increased to 14 to insure completion of all annual visits on schedule.

Whitwell Heads A. G. A. Laboratories Managing Committee



George E. Whitwell

GEORGE E. WHITWELL, vice-president in charge of sales of the Philadelphia Electric Company, has been appointed chairman of the A. G. A. Laboratories Managing Committee. He succeeds N. T. Sellman.

With the exception of Raymond M. Conner, director of the Testing Laboratories, Mr. Whitwell is senior member of this committee in years of service. Unusually active in American Gas Association affairs, Mr. Whitwell has been a member of its advisory council and board of directors, as well as chairman of a number of its working committees.

Inventor of Gas Process

Mr. Whitwell has a most enviable record of accomplishments in the gas industry. Outstanding as an engineer, he is best known as co-inventor of the Young-Whitwell back-run carburetted gas process now employed under license in more than 300 manufactured gas plants in the United States and abroad.

Graduating from the Massachusetts Institute of Technology in 1914 with a degree in chemical engineering, Mr. Whitwell was first employed as Research Engineer with the Anaconda Copper Company, Butte, Montana. He resigned this position to join the Photographic Section, Aviation Corps, United States Army during the World War. From 1920 to 1922 he was engaged as instructor at the University of Washington, Seattle, serving at the same time as consulting engineer of the Tacoma Gas and Fuel Company. During 1923 he

Production models are examined to insure that their construction is identical to that of the samples originally tested and approved. In addition, approval in many instances can be granted to models similar in essential details to others previously tested, as the result of their examination at the factory. This not only eliminates expense of sending additional samples to the Laboratories, but accomplishes considerable saving in time. Full cooperation is given by manufacturers and the Laboratories' representatives are assisted in every way possible.

In addition to factory visits, inspections will be made in warehouses where gas appliances are stored, in department stores and on dealers' sales floors. Visits are also occasionally paid to consumers' homes for the purpose of checking not only individual appliances but their installation as well.

developed the backrun process with D. J. Young then manager of that company. In 1924 he was appointed its general superintendent and new business manager.

In 1925 Mr. Whitwell became manager of gas properties of the Byllesby Engineering and Management Corporation, Chicago, and one year later he joined the Equitable Gas Company, Pittsburgh, Pa., as general manager. In 1927, he was named general sales manager of the Philadelphia Company, Pittsburgh, Pa., later becoming vice-president in charge of sales. He was appointed vice-president in charge of sales of the Philadelphia Electric Company in February, 1931.

In addition to his extensive activities in the gas industry, he has also won acclaim for founding the "Better Light, Better Sight" movement in 1933, which is still conducted by the electric industry. In recognition of this work he was named co-recipient of the 1935 James H. McGraw Award for Cooperation. As a tribute to his outstanding achievements in sales management, he was given the 1940 Howard G. Ford Award presented by the Sales Managers' Association.

DEFENSE COORDINATION

(Continued from page 385)

sion of the Department of Justice before publication and issuance.

"This Office recognizes that there are several Federal agencies having responsibilities and duties with respect to the natural gas and natural gasoline industries under the various statutes they administer. We also recognize that you have continuing duties and obligations under those statutes.

"It is our intention to hold a conference with these other agencies in the near future to draft plans jointly for the coordination of the activities of these Federal govern-

mental agencies as they respect the natural gas and natural gasoline industries.

"This Office recognizes the importance of its being a liaison agent or avenue of contact between the natural gas and natural gasoline industries and all of the Federal agencies having authority with respect to these industries. It is our hope and intention to fully perform that function.

"I would like to discuss with you some of the detailed problems we will both be called upon to solve, but we all know that it is impossible and unwise to anticipate in advance of specific situations. However, there are a few such problems of a general character that I wish you would consider. Production of natural gas must be so arranged as to insure the maintenance of adequate supply and the conservation of an invaluable natural resource. Cycling or repressuring programs must be developed for many of the condensate or distillate fields.

"A good deal of thought must be given to the best utilization of natural gas and natural gasoline both by processes, regions, and industries. We must particularly stress the problem of the production and utilization of iso-pentanes, butanes, and iso-butanenes for the manufacture of aviation gasoline. We must maintain our transportation facilities at peaks of efficiency; perhaps new lines must be built in various sections of the country, certainly we must devise plans to more efficiently use our existing facilities.

"We must face the very tough problem of maintaining a constant steady supply of natural gas to industries that are truly producing for defense. And fundamental to all of your deliberations you must recognize that the materials and supplies needed to keep your industries functioning are no longer readily available in large quantities, but that the imposition of priorities upon the basic materials or finished products you need and use have raised serious problems of maintenance, repair and expansion. These are a sample of the character of problems that must be solved. Our serious, earnest, and joint efforts are needed if they are to be resolved successfully."

INDUSTRIAL GAS MEETINGS

(Continued from page 406)

thing else to the demands of manufacturers of war materials.

We have examples on Ontario, the most highly industrialized province in Canada, of gas companies making very substantial capital expenditures on gas manufacturing and gas processing plants for the sole purpose of meeting these demands. They are doing so without government subsidy and without regard to the ultimate need for the plant after the war is over. Generally speaking, they have taken the stand that this is no time to quibble; that urgency and national necessity must be the compelling factors in determining their course of action.

It is not likely that we from Canada can tell you anything novel or new about the use of gas in war production.

We are supplying gas in huge volumes to military establishments for cooking, water heating and sterilizing, and to manufactur-

ing concerns engaged in making war supplies. Present war requirements are so complex that it is difficult to present an adequate picture of the activities in which gas plays so important a part but they are numerous, ranging from precision tools and dies through all manner of armaments and war supplies to field equipment and signal lamps.

Gas is used also for soldering, by a very delicate process, electrical control cables into metal holders. These parts are alleged to be so delicate that they are not shipped in the ordinary way but are sent in airplanes to keep from knocking them around; but, strange to say, they are used in tanks.

In the same territory a government-owned company has been established for the purpose of manufacturing precision instruments such as range-finders, gun sights, detectors, radio parts, etc. This is a completely new industry built by Canadians with the assistance of English and American experts. In this plant, which has received orders for 48 million dollars worth of equipment, gas exclusively is used for the melting of optical glass and for the majority of subsequent annealing and forming operations, also in the blowing of radio tubes. The load so far reached is about 18,000 cubic feet per hour, with further plants still to come into production.

One company reports that well over thirty per cent of its entire output is used directly in the manufacture of cartridge cases and bullets.

The story of the service being rendered by industrial gas is a very impressive one and presents us with an opportunity to catch the public imagination if we tell that story well. War is the big news today and what each person or industry is doing for war or for defense is also news.

There is a military dictum which goes: "Battles are never won by defending the status quo."

In other words,—unless we go forward we shall retreat.

We have much to fight for; a great deal of our future success depends upon how well we capitalize on our opportunities in the industrial gas field. Let us prove ourselves equal to the task, so that when success shall have crowned our efforts and we are free to look back, we shall rejoice that we were alive in these times to meet the challenge.

RESIDENTIAL SECTION MEETINGS

(Continued from page 400)

Chamberlain, Domestic Range Committee; C. V. Sorenson, Refrigeration Committee; W. L. Jones, House Heating and Winter Air Conditioning Committee; Jack Torbert, Water Heating Committee; Helen A. Smith, Home Service Committee; H. S. Christman, Appliance Financing Committee; Marcy L. Sperry, Housing and Realty Projects Committee; F. M. Rosenkrans, Committee for Improving Domestic Gas Appliances; Hall M. Henry, Market and Economic Research Committee; J. M. McCaleb, Sales and Serv-

ice Relations Committee; Delbert S. Ford, Window and Store Display Committee; George L. Cullen, Special Promotional Exhibits and Activities Committee; and John H. Warden, Community Development Committee. These programs will be carried in detail in subsequent issues of the A. G. A. MONTHLY.

CP Salesmen Honored

Top-ranking CP gas range salesmen in the seven divisions of the United States enjoyed free all-expense trips to the annual meeting as winners in the national Certified Performance gas range sales campaign conducted by the 1941 CP Ranger Club of the American Gas Association in cooperation with the Association of Gas Appliance and Equipment Manufacturers.

Climaxing a series of luncheon and dinner events at Atlantic City during which they were feted, the salesmen were presented at the General Dinner on Tuesday night, October 21, in the Hotel Traymore.

Those whose sales ability won this national recognition are:

- Division 1—William M. Ellis, Southern California Gas Co., Glendale, Calif.
- Division 2—William J. Collins, Iroquois Gas Corp., Buffalo, N. Y.
- Division 3—Richard C. Borne, Minneapolis Gas Light Company, Minneapolis, Minn.
- Division 4—Miss Eleanor Kraus, Gary Heat, Light & Water Co. Gary, Ind.
- Division 5—W. F. Rountree, Mobile Gas Service Corp., Mobile, Ala.
- Division 6—Guy G. Fowle, The Gas Service Company, Pittsburg, Kan.
- Division 7—B. M. Smilie, Alabama Gas Company, Anniston, Ala.

Messrs. Collins and Fowle were repeat winners in their divisions, having won similar awards in the 1940 campaign.

Refrigeration Contest Winners

Winding up a year that saw gas refrigerator sales set new all-time records, 12 high-scoring salesmen and winning companies in 35 classifications received national honors and recognition in the first all-year gas refrigerator sales campaign in the history of the gas industry. These national sales leaders and representatives of the winning companies were presented at the General Dinner on Tuesday night, October 21, in the Hotel Traymore.

The salesmen who earned this outstanding recognition are: Roy Garner, Los Angeles, Calif.; Orson Taylor, Los Angeles; Ernest Audino, Providence, R. I.; Raymond Rina'di, Providence; Albert F. Timmer, Muskegon, Mich.; Robert Scott, Springfield, Ill.; P. H. Winslow, Ft. Wayne, Ind.; O. A. Olson, Kansas City, Mo.; P. L. Freshley, Alliance, Ohio; H. L. Burtner, Parsons, Kansas; Arthur L. Miller, Carthage, Mo.; and A. B. Splawn, Lockhart, Texas.

The winning company in each classification of the six divisions received permanent possession of the beautiful Servel Annual Best Performance trophy for 1940-1941.

Here are the winners:

Division 1—Brooklyn Union Gas Co., Brooklyn, N. Y.; Southern Counties Gas Co., Los Angeles, Calif.; Southern California Gas Co., Los Angeles, Calif.; Boston Consolidated Gas Co., Boston, Mass.

Division 2—Milwaukee Gas Light Co., Milwaukee, Wis.; Providence Gas Co., Providence, R. I.; Birmingham Gas Co., Birmingham, Ala.; Queens Borough Gas & Electric Co., Far Rockaway, L. I., N. Y.; Kings Appliance Corp., Brooklyn, N. Y.; Brooklyn Borough Gas Co., Coney Island, N. Y.

Division 3—Fall River Gas Works Co., Fall River, Mass.; Central Illinois Light Co., Springfield, Ill.; Peoples Water & Gas Co., Miami Beach, Fla.; Florida Public Utilities Co., West Palm Beach, Fla.

Division 4—Washington Gas Light Co., Washington, D. C.; Atlanta Gas Light Co., Atlanta, Ga.; Metropolitan Utilities District, Omaha, Neb.; The Gas-Service Co., Wichita, Kan.; Gas Department, Corpus Christi, Texas; Mobile Gas Service Corp., Mobile, Ala.; Dallas Gas Co., Dallas, Texas.

Division 5—Macon Gas Co., Macon, Ga.; Empire Gas Appliance Corp., Hornell, N. Y.; Alabama Gas Co., Montgomery, Ala.; Manufacturers Light & Heat Co., Bellevue, Pa.

Division 6—The Gas Service Co., Carthage, Mo.; Oklahoma Natural Gas Co., Lamont, Okla.; Roanoke Gas Co., Salem, Va.; Manufacturers Gas Co., Bradford, Pa.

The champion salesmen and representatives of the 35 winning companies received the thrill of a lifetime when, as part of their reward, they took a trip to Miami, Florida, and other points. This was a fitting climax to the recognition they received for selling gas refrigeration.

ACCOUNTING SECTION MEETINGS

(Continued from page 397)

cussion covered the problems of the industry, both current and future, under Order P-46 in a very thorough, interesting and beneficial manner.

No. 5. Property Records Luncheon E. F. Wressel, Chairman.

The major uses of continuing Property Records are in connection with,—(a) Establishing a Rate Base, (b) Taxation, (c) Insurance, (including the settlement of claims) and (d) the sale of the property. The Federal Power Commission has already outlined the basic principles to be followed. There was much discussion regarding the allocation of costs to special work orders, particularly with reference to productive man hours and engineering costs. The use of standard costs was also examined. One member outlined a system whereby labor costs, in keeping this kind of records, had been reduced. Consideration was given to the plan for creating an account "Retirement Work in Progress" when opening

an account for "Construction Work in Progress" when a replacement job is being done.

No. 6. Depreciation Accounting Luncheon

H. C. Hasbrouck, Chairman.

The work of this committee involves a great deal of research for, and cooperation with, the Accounting Bureaus or depreciation study groups of the N.A.R.U.C., the S.E.C. and the F.P.C. The luncheon discussion covered these matters. The chairman quoted from the report made to the N.A.R.U.C. in August by Honorable Nelson Lee Smith, chairman of the Depreciation Committee of that body, which outlined the nature of the report on which the N.A.R.U.C. Committee was working, and told of the cooperation of utility groups, including the A. G. A. Committee. Furthermore, the committees of the A. G. A. and of the E.E.I. have cooperated in exploring the possibilities of statistical, actuarial, and mathematical procedures, and have undertaken to deliver to the N.A.R.U.C. Committee before the end of the year a report which is essentially a critical survey of every such method that has been developed. A first draft of such a report has been completed, with a voluminous appendix containing tables, charts, and formulae, which is at present under review within the two industry committees.

Other studies and reports, completed or in progress, were discussed and experiences exchanged on decisions and positions taken by various regulatory bodies.

No. 7. Taxation Luncheon

R. M. Campbell, Chairman.

The Chairman in his opening remarks discussed the taxing trend of the country and its social and economic effects. The relationship between taxation and inflation was analyzed and the role that the utilities are playing was particularly considered. In part he said, "The foundation of democracy, as we know it, is individual enterprise and we are busily engaged preparing to defend it. American business, an essential part of our democracy, must be relied on to produce the tools of our national defense. The trend towards non-profit operation as expounded by some, simply means that the death-knell of private enterprise, based on the credit system, has sounded, should such a program be carried out. For instance, we hear suggestions that tax rates be increased to prevent inflation, not in the sense that increased taxation means less government borrowing, and therefore less inflation, but on the theory that if we take away the peoples' money through taxation they won't have it to spend and therefore can't bring about inflation. Their reasoning does not appear well founded for inflation is not caused by what you buy and pay for, but actually results from spending what we do not

have, in other words, with borrowed funds."

The program was continued by discussion of defense taxation problems. F. Freer, Jr., of Public Service Electric and Gas Company, presented a paper on "The Nature of the Revenue Act of 1941." His paper dealt with the tax burdens imposed by the new Act and emphasized changes from prior Acts.

I. M. Avent, of United Gas Pipe Line Company, led the discussion on depletion allowances. He examined briefly the changes in administrative procedure in computing percentage depletion.

Insurance Committee Meeting

Reginald Fleming, Chairman.

The organization meeting of the Insurance Committee was held on Tuesday afternoon, October 21. This was an open meeting and provoked lively discussion.

Among the items taken up were group insurance, pensions, hospitalization, surgical, and accident and health insurance. This provoked almost as many different opinions as there were people present. There were also, in addition to other matters, reports and exchanges of views on surety bond premiums, the need for modification of the Inherent Explosion Clause in fire policies, use and occupancy insurance, and malicious mischief and sabotage insurance.

A. G. A. IS ON THE JOB

(Continued from page 377)

possession a large and valuable file on the current war. One of the first tasks completed was a survey of the toluol facilities of the gas industry, subsequently delivered to the U. S. Army Ordnance Department. In March of this year, the Association utilized a questionnaire to obtain valuable information from companies concerning the steps now being taken in this country and in Canada in the protection of plants and employees.

More recently, on June 19th, it was my privilege to submit to Ralph K. Davies, Deputy Petroleum Coordinator for National Defense, a statement on fuel oil requirements of the manufactured gas industry. Our relations with Mr. Davies and with the officials of other departments of the Government handling national defense developments are friendly and cordial. I have no hesitancy in stating that these officials have a high regard for the efficient manner in which the Association is supporting the defense program, including as it does, a consideration of matters affecting the safety and well being of the operating personnel of

the gas industry, provisions for continuity of service to the public and other protective measures too numerous to mention here. The public has an important stake in the Association's defense program.

The same is true concerning the Association's work in dealing promptly and efficiently with growing and pressing needs of gas companies for materials and equipment through priority orders. Of all the measures that have been issued from Washington of a national defense nature, none are more important than those having to do with priorities. The personnel of the Association's Washington office has been increased to handle the additional work and to speed up action on priority orders.

There have been difficulties there, due to the enormous flood of applications, and the rapid change of plans and procedure, but we have endeavored at all times to keep the industry informed and to assist in obtaining the materials necessary to assure continuity of adequate and necessary service to the public and to the national defense.

Efficient Organization

The efficient manner in which our national organization has operated in behalf of the gas industry during this emergency, utilizing the facilities of a competently managed centralized staff, is a noteworthy example of a trade association functioning at its best. No, this national emergency has not caught our Association napping. We were wise enough to see war coming and no time has been lost, nor have we neglected to take any necessary steps to prepare ourselves against eventualities.

Let us turn our attention to another field of activity,—that of public welfare.

The public has actually benefited through the American Gas Association Testing Laboratories.

The evidence need only be brief to be conclusive. For sixteen years the gas industry has taken seriously its responsibility for making available to the public gas appliances which are safe, durable and efficient, through operation of the Association's appliance testing program at the Cleveland and Los Angeles Laboratories.

More than two hundred municipalities in the United States have adopted

ordinances prohibiting installation of gas equipment and appliances which do not comply with the standards adopted by the Association. The Testing Laboratories constitute the only agency in the country which can economically test gas equipment and appliances against these standards, which have also been officially adopted as American standards by the American Standards Association.

Today public acceptance of gas appliances and equipment which meet these standards has become so extensive that 95% of all such equipment and appliances sold in the United States are A. G. A. Laboratory approved. Even more important is the fact that the decrease in deaths and accidents in the United States resulting from gas poisoning has been commensurate with the development of the Association's appliance testing program. This is demonstrated clearly by the records of the Bureau of the Census which show that since the Association's Laboratories were established the annual accidental deaths due to the absorption of deleterious and irrespirable gases have dropped 50% in the United States. During the same period the operating efficiency of residential gas appliances has been increased from 25% to 50%.

Pioneer in Consumer Movement

Much publicity has been given to the consumer movement. The Association's Laboratories pioneered in this movement, and they anticipated by years the demands of consumers for specific product information to serve as a buying guide. Through its Laboratories, the Association has sponsored a project which conforms with enlightened public policy and sound public relations; and the benefits derived by the public and the gas business are becoming progressively more evident as time elapses.

Six years ago at the Chicago Convention, plans were set in motion for a program of national cooperative advertising in behalf of gas fuel and modern gas appliances and equipment. This program has continued without interruption since then.

We are now approaching the end of the second three-year term. Aware of this fact and looking to the immediate future, the Committee on Na-

tional Advertising at its meeting yesterday instructed the Subcommittee on Approval of Domestic Gas Copy to submit a plan of advertising for the seventh year, namely, 1942-43, this plan to be sufficiently flexible in scope to meet changing economic and other conditions as they develop. This action by the Committee on National Advertising reflects its faith in the continued use of effective national advertising by the gas industry.

The other day the home appliance editors of some of the most influential magazines asked the Association what kind of information would be most helpful to the homemakers of the nation at this time. The answer came in the form of six pages of practical, down-to-earth suggestions under the general title of "How to Take Care of a Gas Range and How to Get the Most Out of It." Other information was also forwarded—data on adequate diets, better balanced menus, how to buy food wisely, how to use the cheaper cuts of meat and so on. Those are some of the subjects home service is emphasizing today when household budgets are being strained, and it is but another example of adaptation of an essential service to the specific needs of the times.

As one of the last official acts of my administration as President of the Association, I am proud of the opportunity of presenting an address of this nature. Membership in the Association is to me, as I am sure it is to you, a badge of honor, a proof of ambition, and a guarantee of professional consciousness.

There are two indestructible forces in the business world—organization and the capacity to work together for the common good. These may be joined with intelligent direction to make a trinity of power for advancement in any business enterprise. Such is the progressive manner in which the American Gas Association has functioned. That is why it has proven for twenty-three years to be a stabilizing influence in the gas business.

Today, 90% of the gas fuel sold in the United States is represented by company membership in the Association. I regret that the figure is not 100%. No gas company imbued with true industry consciousness can afford to be a non-cooperator. As a matter of

fact, the problems facing all business today will require, before they are solved, a more intimate cooperation. Individualism, if persisted in, will but further delay the return of normal conditions. The crying need of the moment is for industrial solidarity.

In behalf of the American Gas Association and its planned program of action, which I have demonstrated is in step with the spirit of the times, I respectfully solicit your continued support. I do so in behalf of the best interests of the gas industry, its customers and its security holders, and, therefore, in the best interests of the public. I do so in behalf of the Association's resourceful and experienced Executive Board. I do so in behalf of an efficient Headquarters Staff, capably managed by our own respected and beloved Major Forward. Finally, I do so in behalf of the continuance of the system of private initiative under which the gas industry has come to be acknowledged as one of the key industrial enterprises of America.

Personnel Service

SERVICES OFFERED

Young man—married—16 years' experience in gas equipment field with one employer—desires connection with manufacturer. Thoroughly versed in office routine, supervisory nature—service and maintenance work—warehouse stock control materials expediting. Due to present raw material situation is compelled to make other connections, preferably New York City. (39). 1428.

Coal preparation engineer and chemist, immediately available. Long, varied experience in consulting and analytical work for large corporations. Exceptional ability in research, development, etc. Experienced in technical writing. Excellent references. Well known in bituminous coal industry and engineering societies. Salary, commensurate with position and location. Married. (43). 1429.

Available immediately—college graduate with 11 years' experience in all phases on the manufactured gas industry—seven years in plant production, distribution and management with last four years spent with leading water heater manufacturer. (33). 1430.

Financial, Treasury or Administrative position desired where over twenty years of broad experience can be utilized. Successful record in complex management and financial problems of utility operating, holding and service companies. Active supervision of financial, treasury, accounting, insurance, purchasing, personnel, corporate and operating procedure. Adaptable; married (40). 1431.

General Superintendent with many years successful operating experience, on combination gas and electric properties, is desirous of making a change. Complete information as to qualifications and references on request. 1432.

Salesman—interested in lucrative proposition. Twenty-five years stove and heating experience, contacting utilities, wholesale, retail and consumer trade. Capable sales promoter and department manager. Have covered eastern and southern areas. Will travel any territory. 1433.

1941-1942 Advisory Council

FRANK H. ADAMS.....	Toledo, Ohio	N. C. MCGOWEN.....	Shreveport, La.
C. W. BENNETT.....	Detroit, Mich.	F. A. NEWTON.....	New York, N. Y.
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HUGH CUTHRELL.....	Brooklyn, N. Y.	JAMES F. POLLARD.....	Seattle, Wash.
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